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JPRS Report—

Proliferation Issues

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PROLIFERATION ISSUES

JPRS-TND-94-017

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9 September 1994

[This report contains foreign media information on issues related to worldwide proliferation and transfer activities in nuclear, chemical, and biological weapons, including delivery systems and the transfer of weapons-relevant technologies.]

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Atomic Energy Research Body Enters Market

*OW1608135894 Beijing XINHUA in English
1349 GMT 16 Aug 94*

[Text] Beijing, August 16 (XINHUA)—The China Atomic Energy Scientific Research Institute has become the country's major base for nuclear energy research, development, production and management for civil use.

Since 1985 the institute has won a total of 33 state prizes and over 350 prizes at the ministerial level.

Last year the institute's output of civil-use services reached 66 million yuan (about 7.67 million U.S. dollars).

Meanwhile, the institute, employing its technological advantages, is paying a great deal of attention to the

development of new products, including a neutron source stick for starting the reactor of the Qinshan nuclear power station in east China's Zhejiang Province.

The institute has also trained specialists in nuclear energy production and management.

In foreign cooperation, successful projects include mini-reactors and neutron diffraction spectrometers. In particular, the "871 Project" was China's first export of nuclear technology.

Last year, the institute was among the first batch of Chinese scientific research bodies to get foreign trade autonomy.

REGIONAL AFFAIRS

Foreign Minister Says ROK Reactor Model DPRK's 'Set Choice'

SK1608010294 Seoul YONHAP in English 0043 GMT 16 Aug 94

[Text] Oslo, Aug. 15 (YONHAP)—There is no other realistic alternative for North Korea than to accept the South Korean version of light-water reactors, and inter-Korean dialogue will have to open to discuss this issue, South Korean Foreign Minister Han Sung-chu said Monday.

In the middle of his nordic visit, Han suggested the South Korean reactor model is virtually a set choice, saying North Korea agreed to let the United States make the selection and there is already an agreement between Seoul and Washington to choose the South Korean model.

Inter-Korean dialogue will necessarily have to resume in order to deal with the process of providing the reactors, implementing the agreement for denuclearization of the Korean peninsula, and supplying the alternative energy to North Korea, said Han.

U.S. officials assigned to prepare for their liaison office in Pyongyang could enter North Korea before Sept. 23, the date when North Korea-U.S. high-level dialogue reopens, he said, and they may enter with another team due to go to North Korea to help prolong the safekeeping of the spent fuel rods currently kept in a cooling pond.

The foreign minister dismissed criticisms that Seoul's interests were ignored at North Korea-U.S. talks, explaining that Seoul's interest lies in solving the nuclear problem, maintaining peace on the Korean peninsula, and bringing North Korea out into an open community.

"Considering these points, it's inappropriate to say Seoul's interests were ignored," he said.

The agreement to provide light-water reactor to North Korea cannot be fulfilled unless there is guarantee of transparency into Pyongyang's past nuclear activities, the foreign minister said.

"One of the important results of the North Korea-U.S. meeting is that Pyongyang admitted to this principle," he said.

ROK Official Says No Plans for Gratuitous Support on DPRK Reactors

SK1808055594 Seoul CHOSON ILBO in Korean 18 Aug 94 p 2

[By Ho Yong-pom]

[Text] On 17 August, the National Assembly held a foreign affairs-reunification committee meeting for the first time since the third round of U.S.-North Korea talks were held, and inquired into government measures for

implementing special inspection to ensure North Korea's past nuclear transparency and for support of construction of light-water reactors. Pak Kon-u, Vice Foreign Minister, and Kim Sam-hun, ambassador in charge of nuclear affairs, were called on to attend in the meeting.

Stating that "It is difficult to understand why the ROK should bear most of the expenses for converting North Korean light-water reactors when there is no firm guarantee for special inspection and implementation of the joint declaration for denuclearization of the Korean peninsula," lawmakers from both the ruling and opposition parties called for measures to be taken to reexamine the overall cooperative system between the ROK and the United States.

In response, Vice Foreign Minister Pak Kon-u revealed that "during North Korea-U.S. talks, the United States explicitly stated that unless the North Korean side's commitment, including special inspection, is fulfilled, support for construction of light-water reactors cannot be provided, and there is no room for doubt."

Regarding the method of support for light-water reactors, Vice Foreign Minister Pak added that while "relevant countries are considering plans to extend credit and gratuitous support by forming a consortium among relevant countries, the ROK is not considering the option of gratuitous support. Most of the concrete details regarding support for light-water reactors, such as procedure, method of financial support, the participating countries, obligations of North Korea, and so forth, still remain unsolved."

NORTH KOREA

Ambassador to Sweden on Nuclear, ROK Issues

BR2408145494 Rotterdam NRC HANDELSBLAD in Dutch 23 Aug 94 p 4

[Report on interview with Yom Kyong-sik, close associate to Kim Il-song and North Korean ambassador to Sweden, by Lolke van der Heide in Stockholm on 23 August: "North Korea Is Transforming Its Mourning Into Strength"]

[Text] Swedish neighbors refer ironically to "the club" when they discuss the North Korean Embassy, a stately, yellow mansion in Lidingoe, a wooded suburb of Stockholm. The North Korean community lives there completely isolated from the outside world, combining living and working on the embassy grounds.

North Korea has no embassies in European Union (EU) countries. In order to speak to diplomats from Pyongyang in Europe, one has to travel to the periphery of the EU: Sweden, Finland, Austria, or Switzerland.

Yom Kyong-sik (aged 57), North Korean ambassador in Sweden, is a cordial man. He pours the coffee himself and appears, still, genuinely moved by the death of

82-year-old "Great Leader" Kim Il-song on 8 July. But there could be no misunderstanding about the question of succession, Yom said. "Kim Chong-il did not have to be chosen, for the last 20 years he has been our leader of the Army, party, and state," Yom said. "The people still call him 'Beloved Leader,' but in fact he is the new 'Great Leader.' It is up to the people to decide how it calls its leader. That is difficult for a westerner to understand." Despite reports in the North Korean press pointing to the opposite, Kim junior is in very good health, Yom said. "He is just very tired because of the death of his father, but now we are about to transform mourning into strength.

Until he became ambassador to Stockholm two years ago, Yom worked at the Foreign Ministry in Pyongyang and was a confidant of Kim Il-song. As such he belongs to the higher echelons in the North Korean hierarchy.

Yom emphasizes the peaceful intentions of his government. They were proven by the agreement which North Korea made 10 days ago in Geneva with the United States, he said. Under the agreement, Pyongyang agreed to replace its graphite power stations with light-water power stations, from which the country cannot distill plutonium to make nuclear weapons. Other questions, namely additional inspections of the five-megawatt power station in Yongbyon, remained outside the agreement.

The ambassador is surprised that the United States is now starting to request additional inspections. President Clinton made this demand last week. "During the last round of talks a 'special status' was agreed upon for our country," Yom said. "The demand of additional inspections is not included in the agreed text. We do allow inspectors to come to Pyongyang, but then they are under our supervision." Yom spoke of "forced inspections with a military objective which have nothing to do with nuclear energy."

Yom says the international community has wrongly pressed his country hard in recent years. Pyongyang has always fulfilled all its obligations. "Let me give an example," he said. "In May 1992, a number of delegations from the International Atomic Energy Agency (IAEA) came to our country to carry out inspections. One of these groups wanted to make two additional visits outside the agreed facilities. The inspection was led by Swede Hans Blix (director of the IAEA) and we even gave him the freedom to look at more than had been agreed. But then they wanted to visit other military installations and so it continued. We have to draw a line somewhere."

Van der Heide: If your country wants peace then you can have nothing to hide.

Yom: You must understand that since the Korean war ended in 1953, our country has been in no more than a pause in war. War can break out again at any moment. At the border with South Korea, we are facing 16 UN

countries, with the United States as the great power. A hundred nuclear weapons and 40,000 U.S. soldiers are located in South Korea. So for these reasons would it not be difficult for us to reveal all our military secrets? Just imagine: There is a nuclear war and we have only one nuclear weapon and they have a hundred.

Van der Heide: So you want your own nuclear bomb for defense?

Yom: No, we have no wish to have our own nuclear weapons or to invade South Korea. But I ask you: Why are so many U.S. soldiers still on the Korean peninsula? Since the Cold War is over there is no reason for the United States to still have troops here. But they do have them and therefore we must remain vigilant. The key question is: What do the Americans want?

Van der Heide: Are you afraid of the Americans?

Yom: Yes, we watch them. We are afraid of them, not of South Korea.

Van der Heide: Since the collapse of the Soviet Union, only China remains as a major ally of North Korea; that must have caused problems.

Yom: Since the liberation of our country in 1945, we have developed completely independently. We have never been dependent on Moscow or Beijing. We have built up our own Socialist system and our people want to keep it. Of course the disappearance of the Soviet Union did not pass us by unnoticed, but we have managed to find contacts and trade in Asia to replace it.

Van der Heide: South Korea has offered to supply the new light-water power station. Will you accept?

Yom: A South Korean representative was here a few days ago and he made some very negative remarks: As a precondition for supplying the power station, he wanted forced inspections by the IAEA. We will never accept such preconditions, not from South Korea, not from the United States, not from Japan, not from anybody. We do nothing under pressure. Dismantling the graphite power station is already an enormous step for us. We are only doing it because otherwise the whole world will continue to have a poor view of us. [end of Yom interview]

At the end of the interview, Yom dreams aloud of Korean unification, which he longs for passionately. "South Korea is the same country as ours, the same history, the same background, the same people. It will be a long road, that is certain. I see a confederation first, with two governments (one country, two systems). We would open the frontiers and allow the Koreans to decide themselves which system they prefer and where they want to live."

The first "precondition" is a change in the leadership in Seoul. South Korean President Kim Young-sam was recently described by Pyongyang as "a dictator of the worst kind." These are not words which point to reconciliation. "No, my people do not like him," Yom says,

"Kim Yong-sam did not even react to the death of our great leader and banned his citizens from mourning. We find that inhuman."

Nuclear, Chemical, Biological Warfare Research Detailed

94WP0127A NAEOE TONGSIN in Korean No 903, 9 Jun 94 pp B1-B4

[Text]The North Korean [NK] military has reportedly strengthened various kinds of research and training in preparation for nuclear, biological, and chemical [NBC] warfare. Piecing together recently collected intelligence on the NK military, NK is said to have established a "Nuclear, Chemical Defense Bureau" within the Chiefs of Staff of the Ministry of People's Armed Forces [MPAF], giving it overall control of NBC warfare operations. It is also said to be preparing for NBC warfare by establishing a chemical department in each corps and in the command departments of the navy and air force.

The chemical department established in each corps has a subordinate "anti-nuclear, anti-atomic analysis center" and chemical battalion. Generally conducting intense chemical and biological weapons attack training, it is in charge of the task of guiding and controlling the chemical platoons organized up to the regiment level.

The "Nuclear, Chemical Defense Bureau" was established within the Chiefs of Staff of the MPAF in March 1991 and put in overall control of NK's NBC warfare operations. The basis for this was Kim Chong-ils instructions to establish the organization, given on the occasion of the Gulf War. Accordingly, scattered experts and equipment were gathered; operational areas also were specialized and strengthened.

The "Nuclear, Chemical Defense Bureau" has its headquarters in the MPAF's Building Eight [8ho Chongsa]. It is organized into a total of eight departments. These are Department One (operations), Department Two (training), Department Three (technical), Department Four (material), Department Five (reconnaissance), Department 32, Tunnel Management Department, and the Chemical and Biological Defense Research Center.

The Chemical and Biological Defense Research Center is considered its core department. This research center has its headquarters in Changsan-tong, Sosong-ku, Pyongyang, and has two branches in Pyongwon County South Pyongam Province. It is reported to have even a "nuclear surveillance station". This "nuclear surveillance station" is set up on Sol Peak in Angol, Mangyongdae-ku, Pyongyang. Its function is to observe and analyze the effects of nuclear testing on Pyongyang. As for the personnel at the Chemical and Biological Defense Research Center headquarters located in Pyongyang, it is reported to be composed of 40 enlisted men and 35 officers specializing in NBC warfare. Previously, this research center was located in Yongsong-ku, Pyongyang, and had been made up of ten officers and 15 enlisted personnel.

Large-Scale Training Conducted Twice Annually

Besides these eight departments, the Nuclear, Chemical Defense Bureau also has directly subordinate combat units. Thus, as far as NBC warfare is concerned, these combat units are considered NK's most elite. They total eight battalions. These eight directly subordinate units are divided into two active battalions and six reserve battalions. They receive large-scale training at least twice annually. The six reserve battalions are composed of laborers working in civilian factories closely related to the NBC field. The two active battalions are both stationed in the Pyongyang area. Concretely, the six reserve battalions are:

- Hamhung Vinalon Complex (13th BN);
- Suchon Vinylon Complex (14th BN);
- 15th BN (factory name unidentified);
- Anju Namhung Chemical Plant (16th BN);
- 27th BN (located in Wonsan, factory name unidentified); and
- Sariwon Potassic Fertilizer Complex (36th BN).

The two active battalions are the 17th Nuclear and Chemical Defense Battalion, located in Onjong-ri, Songchon County, South Pyongan Province, and the 18th Nuclear and Chemical Defense Battalion, located in Sokam-ri, Pyongwon County, South Pyongan Province. These two active battalions have five and six subordinate companies respectively. The large-scale training, carried out two or more times annually, is generally conducted in three stages. A launcher fires a chemical round, spraying chemical gas. An "Uwaju" (a chemical reconnaissance vehicle) follows, determining sprayed areas and marking contaminated sectors by placing yellow contamination flags. A "Charu" (a new detoxification vehicle) then conducts detoxification. Not only the combat units under the direct jurisdiction of the a Nuclear, Chemical Defense Bureau, but also the chemical battalions of each corps are required to participate in this large-scale NBC training.

Poisonous Gas Stored in Underground Tunnels

Such NK NBC research and training is reportedly lead by promising field-grade officers. They are Song Myong-ho, Kim Wal-tae, and Hwang Chang-pyong. They in particular are said to play a pivotal role in nuclear simulation experiments and other nuclear-related projects.

Song Myong-ho, a lieutenant colonel, has collected and studied various nuclear-related data since 1983 as he traveled around the former Soviet Union, Hungary, and other countries. He was the main person responsible for the design and manufacture of the "automatic nuclear detonation observation device," and is considered the foremost nuclear expert within the NK military.

Kim Wal-tae, a senior colonel, obtained an associate doctoral degree with his dissertation entitled, *On the Survey of Nuclear and Chemical Contamination Under*

Our Country's Topographical Conditions [Uri Nara Chi-hyong Chokonesoui Haek Hwahak Oyom Chukjunge taehayo]. He is reported to be an NBC warfare expert, the author of *Surveying Nuclear Detonations [Haek Pokbal Chukjong]*, *Surveying Chemical Detonations [Hwahak Pokbal Chukjong]*, and other works. *Surveying Nuclear Detonations* and these other works were even published by the Kim Il-sung Military University and are used as teaching materials by related colleges and research centers.

Hwang Chang-pyong, a colonel, is introduced as an expert in nuclear and chemical contamination problems, a graduate of Kim Il-sung Military University, Kanggon Officers School, and the Hamhung College of Chemical Engineering. He is also reported to be an "excellent computer programmer," something rare in NK. In particular, the nuclear and chemical contamination computer program created by him is recognized in NK as having the highest authority.

Meanwhile, NK's chemical and biological weapon production, which began in the early 1960's, has now reached a stage at which it is capable of mass producing complete weapons. These chemical and biological defense weapons are being produced in chemical factories throughout the country and in the chemical and biological defense research centers subordinate to the "Nuclear, Chemical Defense Bureau." They are presently creating poisonous gases, such as blistering, nerve, asphyxiating, blood, and tearing agents, and cultivating infectious agents, such as cholera, bubonic plague, anthrax, and contagious hemorrhagic fever.

In detail, the chemical weapons factory at Kanggye in Chagang Province is producing violet phosphor (a sulfur-based poison gas), yperite [mustard] gas (a phosphor-based poison gas), CS shells, and CN shells (tear gas shells). The Hyesan chemical plant in Yanggang Province and the Sakju chemical plant in North Pyongan Province produce intermediate materials for chemical weapons, such as benzene, phenol, hydrochloric acid, and sulfuric acid, and complete products.

A branch of a chemical and biological research center subordinate to the "Nuclear, Chemical Defense Bureau," located in Sokam-ri, Pyongwon County, South Pyongan Province produces nuclear and chemical antidotes and NBC masks and suits. This place is also called "Research Center 279" and "Factory 279." It has a close, cooperative relationship with the 17th Nuclear Defense Unit. The "Maram Materials Corporation" and "Chiha-ri Chemical Corporation" are representative of storage sites for these chemical and biological weapons. The Maram Materials Corporation, subordinate to the operations department of the "Nuclear, Chemical Defense Bureau," stores these chemical and biological weapons in three tunnels and large 4-m high tanks.

In the three tunnels, situated in the mountains of Maram-tong, Yongsong-ku, Pyongyang, are stored NBC masks, and violet phosphor, yperite [mustard] and other

solid chemical weapons in powder form. The large 4-m high tanks contain liquid chemical weapons, such as bezone, phenol, and hydrochloric acid.

The "Chiha-ri Chemical Corporation" is located in Chiha-ri, Pangyo County, Kangwon Province and stores chemical weapons using the same methods as the "Maram Materials Corporation."

SOUTH KOREA

ROK Assistant Defense Minister Press Briefing on SCM Talks

SK1708014594 Seoul YONHAP in English 0115 GMT 17 Aug 94

[Text] Seoul, Aug. 17 (YONHAP)—The U.S. Government has agreed, in principle, to ease its controls over South Korea's exports of U.S. technology-based military goods to third countries, a ranking Defense Ministry official said Tuesday.

In a press briefing on the recent sub-committee meetings of the Korea-U.S. Security Consultative Meeting (SCM) held in Hawaii, Assistant Defense Minister An Pyong-kil said Pentagon had promised to review positively Seoul's proposal that South Korea be allowed to export those items which are no longer produced in the United States without prior U.S. consent but with after-export notice to the U.S. Government.

The U.S. Government also made a commitment to positively study another proposal that in case South Korea asks for exports of items which are being produced in the United States, Washington give a reply as to whether or not it consents to such exports within 45 days of the request, he added.

Another Defense Ministry official said the U.S. Government had opposed South Korea's exports of even those items which are no longer produced in the United States for fear that such exports will result in decreasing the demand for new U.S. weapons.

Thus, the recent U.S. commitment is considered as a sign of change in U.S. policy toward South Korea's exports of U.S. technology-based items to third countries, the official remarked.

Since 1989 when the memorandum of understanding on exports of U.S. technology-based defense goods was exchanged between the two countries, South Korea has asked for U.S. consent to 182 exports, of which only 25 or 14 percent have been granted the consent.

Especially since 1992, only two of the 101 South Korean export requests have been accepted, according to the ministry.

In the Hawaii meetings, the two countries agreed to revise part of the follow-up memorandum of agreement on logistic support for improved combat capability of the combined Korea-U.S. Forces in the case of war.

Officials 'Optimistic' on ROK Role in DPRK Reactor Project

*SK1708034594 Seoul YONHAP in English 0251 GMT
17 Aug 94*

[Article by Yi Tong-min]

[Text] Seoul, Aug. 17 (YONHAP)—South Korea's nuclear reactor technology will be put to a test soon when it, if all goes well as wished, forms the core of light-water reactors to be provided to North Korea.

The United States agreed last weekend to arrange 2,000mw scale of light-water reactors to North Korea in exchange for transparency in Pyongyang's past, present and future nuclear programs.

South Korean officials are optimistic that Seoul will be the key player in the reactor project. And so far, things have been going in this direction.

The 2,000mw scale is a meaningful decision. North Korea at first demanded four 440mw reactors but settled for 2,000mw, a scale best fitted for South Korean technology. Seoul builds reactors at 1,000mw unit, in pairs for maximum cost efficiency. The North Korea-U.S. agreement is to build two 1,000mw light-water reactors.

Rough estimation here is that the two reactors will cost about 4 billion U.S. dollars, but officials say the figures will go down in the end. Seoul localized 95 percent of the parts and skills that go into reactor construction. The other 5 percent usually comes from the United States. South Korea, although it hopes to be the main supplier, plans on getting Japan, Russia and the United States involved in construction and financing.

Russia's VVER model is not exactly compatible with the South Korean model, and officials say they will have to discuss among experts how Moscow can participate.

Japan's model basically has the same import origin so there will not be technical hitches in giving Tokyo a role.

The most likeliest scenario is to have the United States do the blueprint for reactor construction, South Korea do the construction itself, and Japan do the facilities for discarding nuclear waste.

Local companies with experience in building nuclear power plants are Hyundai Engineering and Construction Co., Daewoo Corp., Tong-A Construction Co. and Korea Heavy Industries and Construction Co.

The project takes between eight to 10 years from planning to completion.

Seoul is willing to put up a majority of the construction cost, although the share will have to be decided at trilateral negotiations among South Korea, Japan and the United States.

There is a question of whether North Korea will get the reactors free of charge or allowed to pay back through the

years, but officials say the chances of handing over the reactors without payback is nil.

Some have suggested that since North Korea will not be immediately needing all the power generated from the power plants, Seoul can be paid back with electricity supply.

South Korea has its own reasons in aggressively assuming a key role in the project. Once Korea is reunified, the reactors become their common property anyway.

But any conclusive decision on the project is subject to negotiation with South Korea's allies and other hopeful participants.

Energy Ministry Officials on Consortium for DPRK Reactors

*SK1708090594 Seoul HANGYORE SINMUN in Korean
17 Aug 94 p 1*

[Report by Kim Song-ho and Sin Hyon-man]

[Text] The ROK, the United States, Japan, and Russia are expected to form a joint consortium to push ahead with the project of building atomic reactors in North Korea. In addition, chances are bright that (Combustion) Engineering Company of the United States, which has the core technology and supplied the model for the ROK-type atomic reactors, will become the company supervising the project.

Pak Un-so, vice minister of the Trade, Industry, Energy Ministry, said on 16 August that "the biggest problem regarding construction is deciding which country will cover the expenses of \$4 billion (3.2 trillion won)?" and added that "full-fledged discussions regarding the scope of credit, the conditions for assistance, and grant-type assistance involving the provision of light-water reactors have not been made."

He also said "the country that will be in charge of providing core parts necessary for the construction, including nuclear reactors and terbium, will have to pay the large amount of money needed to build the atomic reactors," thus hinting that the ROK will likely have to shoulder the major share of the financial burden.

The vice minister said "there were no discussions on how the ROK will collect the money, however, we are studying ways to prepare the funds, such as using the North-South economic cooperation funds or loans from overseas by the Korea Electric Power Corporation." He then added that "Russia is likely to participate in the consortium, however, it will be difficult for Russia to provide the funds."

Prior to this, Kim Tae-kon, the assistance minister for energy of the Trade, Industry, Energy Ministry, revealed that "chances are high that a U.S. corporation will be the major contractor if the consortium is formed."

He added "even though the government has already mapped out a plan to assist North Korea's reactor construction, it is hard to reveal the plan now."

In the meantime, Foreign Minister Han Sung-chu, who is currently visiting Norway, said on 15 August regarding the issue of providing North Korea with atomic reactors that "there is no other realistic alternative for North Korea than to accept the ROK version of light-water reactors in light of the character of the North Korean-U.S. agreement."

Foreign Minister Han stated: "North Korea agreed to let the United States make the selection," and added that "prior to this, there has already been an agreement between Seoul and Washington to choose the ROK model." He then added that "inter-Korean dialogue will necessarily have to resume in order to deal with the process of providing the reactors, implementing the agreement for denuclearization of the Korean peninsula, and supplying the alternative energy to North Korea."

Unification Minister Urges U.S., Japanese Aid for Reactors

SK1708102594 Seoul YONHAP in English 1017 GMT 17 Aug 94

[Text] Seoul, Aug. 17 (YONHAP)—Deputy Prime Minister Yi Hong-ku said on Wednesday the United States and Japan should provide financial and technical assistance in the proposed construction of light-water atomic reactors in North Korea.

"The two countries should furnish assistance in a way befitting to the cause of maintaining the Nuclear Non-proliferation Treaty (NPT)," Yi said.

While meeting with reporters at his office, the deputy premier said the North Korean nuclear question is an issue not only of the Korean peninsula but also of the international community.

"This will be a good opportunity for Japan to contribute to world peace and regional development," he said.

Yi, who is also national unification minister, said the South-North dialogue would have to be resumed any way if only to discuss the issue of South Korea's support for the change of North Korean graphite reactors into light-water ones.

He said South Korea is in the policy of supporting the light-water reactor project not because of threat from the North but from the angle of helping elevating the well-being of the whole Korean people.

"The light-water reactor question is an issue that can hardly be resolved without direct negotiations between the two Koreas," he said.

On North Korea's attitude as revealed at the recent Geneva U.S.-North Korea talks, Yi said North Korea seems trying to resolve the question through a dialogue with the United States.

"We understand North Korea also realizes that no nuclear question can be settled without a dialogue with South Korea," he said.

Yi said South Korea has never been in a hard-line policy toward North Korea since the death of Kim Il-song.

"We have in fact been very careful in our attitude, a trend which I understand North Korean leaders are well aware of," he said.

Deputy Prime Minister Yi said that since improving inter-Korean relations would be a course requiring a long period of time, his government does not stick to the doctrinaire stand that South-North relations should always be improved before any relations improvement between the United States and North Korea.

He was quick to add, however, that there can be no diplomatic normalization between Washington and Pyongyang before improving inter-Korean relations.

It seems North Korea's political decision is necessary for resuming the stalled inter-Korean dialogue, Yi said, adding that North Korea too should cooperate in the effort to have the South Korean people understand support for the North's light-water reactors.

Weekly Reviews DPRK Defectors' News Conference

SK1608043894 Seoul SISA JOURNAL in Korean 11 Aug 94 pp 6-10

[Article by reporter Kim Tang based on the news conference held by two DPRK defectors to the ROK, at the Korea Press Center in Seoul on 27 July, entitled: "First-Class Information Veiled by 'Nuclear Warheads': A Close Analysis of the 'Six Secrets' Revealed at the Defectors' News Conference"]

[Text] The joint news conference held by Messrs. Kang Myong-to and Cho Myong-chol at the Korea Press Center on 27 July attracted extraordinary media attention not only because it was the first news conference by defectors since the death of North Korean President Kim Il-song, but because Mr. Kang is the son-in-law of North Korean Premier Kang Song-san, who ranks third in the North Korean hierarchy, and Mr. Cho is a son of former North Korea construction minister Cho Chol-chun. The immense media interest may have stemmed from the fact that following the closure of North Korea's borders following Kim Il-song's death, they had been focused on marginal issues such as who was expressing condolences over Kim Il-song's death and who was pulling the wires behind the Chusapa student movement [followers of Kim Il-song's chuché idea].

The day after the news conference, almost all of the mass media, with the exception of the HANGYORE SIN-MUN, cited Mr. Kang's remarks in front-page articles entitled, "North Korea Manufactured (or Possesses) Five Nuclear Bombs (or Nuclear Warheads)." The very

next day, almost all of the media, with the exception of the CHOSON ILBO, coincidentally expressed doubts about the credibility of what had been reported the previous day. The question was whether North Korea had actually produced (or possessed) the five nuclear bombs or warheads.

They unanimously pointed to the confusion in the handling of North-related information and the problems in the ROK-U.S. cooperative system. They were particularly suspicious about whether the news conference was aimed at throwing cold water over the third round of the North-U.S. high-level talks since it was arranged by the government (or the National Security Planning Agency, NSP) at a tricky time.

The North Korean media also completely denied what Mr. Kang said at the news conference. Pyongyang Radio simply refuted everything and called Kang "human trash who embezzled large amounts of public funds." Its allegation about his embezzlement of public funds was convincing in some aspects, as Mr. Kang himself disclosed that North Korean authorities suspected that he had embezzled money he failed to collect for the steel plates and second-hand cars he sold while he was in China. So, in the eyes of North Korean society that regards capitalism as trash and that bans reckless contacts with foreigners, Mr. Kang is "human trash" who betrayed the fatherland.

Notwithstanding the commotion he created at home and abroad with the unconfirmed information about nuclear bombs, Mr. Kang has provided extremely useful, up-to-date, and high-class information. Media attention, however, has been focused only on the unconfirmed information regarding North Korea's possession of five nuclear bombs. Mr. Kang provided very important information which can change the direction of the government's basic policy toward the North: Detailed information like the license plate number (211- 5555) of the Benz belonging to O Chin-u, the DPRK People's Armed Forces Minister, and information that the Team Spirit exercise which the South claims is defensive, is regarded by the North as an offensive exercise, and thus a major reason for North Korea's economic difficulty, and that North Korea's nuclear development is being pursued defensively to guarantee security against the danger of a U.S. attack and in an effort to extricate itself from economic difficulties by turning defense industry plants into ones for civilian use.

Such information could serve as important grounds for the government to determine basic policies such as whether it should intensify the Team Spirit exercise in order to worsen North Korea's economic difficulty and thus expedite its collapse, or halt the exercise to relieve North Korea and lead it to open up and reform.

The following is a gist of noteworthy points revealed for the first time at the news conference.

A Dissident Intellectual Group Exists

The motives of defection for the two did not differ much from other defectors. Both persons pointed out their antagonism against the Kim Chong-il system and Kim Chong-il himself. In contrast to Mr. Kang who had once been detained at the No. 18 Detention Camp on the orders of Kim Chong-il, Mr. Cho, who had experienced a relatively smooth career, cited his uncertainty about the Kim Chong-il system as one of his motives for defection. In particular, Mr. Cho gave a noteworthy answer to the question of how his family and relatives would regard his defection. Saying "I have a wife and a son," in answer to this embarrassing question, Mr. Cho added that: "For those who follow the Kim Chong-il system, my act is a traitorous one, but I hope they do not think that I came down here to seek a better life here only for myself."

He said that those opposing the North Korean system who remain in North Korea, will probably ask "why did you opt to go to South Korea to live a good life only for yourself, instead of remaining with us to wage a struggle?"

What Mr. Cho meant was: "People will not speak well of me regardless of whether they favor or oppose the North Korea system, and I regret such realities."

When he was an instructor at Kim Il-song University, he was able to meet with students who professed dissatisfaction with the North Korean system, and although it was never formalized, that fact that a dissident intellectual group that aspires to "remain to struggle" exists was never before revealed by any other defector.

The Director of the State Security and Defense Department [kukka anjon powibujang] Is Cho Sun-paeck

In the course of the disclosing the motives for his defection, Mr. Kang supplied some very important information. According to Mr. Kang, he went to China in late December of last year to personally collect bills for the 600 tonnes of steel materials and 50 used Japanese-made cars that were exported to China. Mr. Kang was able to go to China despite his record of having been detained at a detention camp for "reckless contacts with foreigners," because he was aided by "Premier Kang Song-san, his father-in-law, and Cho Sun-paeck, deputy director of the Organization and Guidance Department and the director of the State Security and Defense Department of the party Central Committee." In saying "I heard on October 1993 from an (unnamed) official of the State Security and Defense Department responsible for guarding the nuclear facilities in Yongbyon" that North Korea possesses five nuclear bombs, Mr. Kang again stressed that "I am quite close to Director Cho Sun-paeck and his son was with me." He disclosed that he went to China with Cho Myong-sik (Director Cho Sun-paeck's son) who is an instructor at the Nungyongyunjon Joint Venture Company under the Finance Department of Kumsusan Assembly Hall for which Mr. Kang was vice

president, but that he sent Mr. Cho back first when it became apparent that there were problems in collecting money for bills. While I was in Beijing, a friend of mine stationed in Yanji as an official of the State Security and Defense Department informed me that an order had been issued for my arrest, and that is how I came to the ROK via a third country.

Since a man with the backing of the "director of the intelligence agency of North Korea" had come to the ROK, the NSP could not have asked for a better defector. Furthermore, this is very noteworthy in that the name and face of the director of North Korea's State Security and Defense Department has never been revealed to the public in the last 10 years. The name of the State Security and Defense Department has never appeared in the diagrams of North Korea's hierarchical line-up as have been disclosed by the ROK Government or the mass media since Kim Il-song's death. It seems that the director of the State Security and Defense Department is using an assumed name even in the hierarchical line-up.

The speculation is probable in light of Cho Myong-chol's testimony. Asked about Choe Yong-ho, father-in-law of Cho's brother Cho Tong-chol and who worked for Kim Chong-il at his Secretariat for 15 years, Cho said, "He is a deputy-director level of the Secretariat of the party Central Committee but few people know him even within the party departments because he uses a false name. He is very close to Secretary Kim Chong-il and calls him 'Comrade [tongmu] Kim Chong-il.' As far as I know, he is in charge of cultural and financial affairs at Kim Chong-il's Secretariat."

Actual No. 2 Man Is Chang Song-tae

Kang also provided new information on the position of Chang Song-tae, brother-in-law of Secretary Kim Chong-il and who is known as "the closest aide" working as the director of the Youth and Three Revolutions Teams Departments of the party Central Committee since December 1989. The person attracting the most attention in the Kim Chong-il system, Chang Song-tae is regarded as a core figure of the next generation and rumors have it that Kim Chong-il once wanted to appoint him director of the State Security Department. Kang said, "Chang Song-tae was transferred from the post of director of the Youth and Three Revolutions Teams to the first deputy director of the Organization Guidance Department before I left for China in December 1993." Kang added that Kim Chong-il gave his position of director of the Organization Guidance Department to Yun Sung-kwan, whom he trusted, but that when Yun gained too much power, Kim Chong-il fired both him and Ko Kap-chong, Yun's close friend and the first deputy director in charge of censorship in the Organization Department, and, eliminating the director's post at the Organization Department, appointed Chang Song-tae first deputy director.

Judging from Kang's remarks that "the position of the first deputy director of the Organization Department is more powerful than the secretaries of the party Central Committee," Chang Song-tae is already actually playing the role of No.-2 man in the Kim Chong-il system.

Newly Revealed Kim Il-song Family Tree

The Kim Il-song family tree is an important resource to understanding the North Korean system. The North Korean society is a clan system in which Kim Il-song's relatives and in-laws occupy the core positions of power. Kang's testimony adds considerable new information to the Kim Il-song family tree, a popular subject for the media following Kim Il-song's death, and particularly provides information on Kim Il-song's maternal family. The Kang family are remote relatives to Kim Il-song's mother's maiden home. Defector Kang's grandfather was a second cousin to the father of Kang Pan-sok, the mother of Kim Il-song.

Premier Kang Song-san was thought to be Kim Il-song's cousin by a maternal aunt but it was revealed this time that he is not related.

According to Kang, if one says he is from the so-called Mangyongdae family tree (the family tree of Kim Hyong-chik, Kim Il-song's father) or the Chilgol family tree (the family tree of Kang Pan-sok, Kim Il-song's mother), it works everywhere. According to the Kim Il-song family tree revealed by Kang, the relatives and in-laws are leading the work to idolize the Kim Il-song and Kim Chong-il family tree in various parts of North Korean society, particularly in the Kim Chong-il Museum, whose director is Kang Tok-su, under the Ministry of the People's Armed Forces, and in the General Bureau for the Guidance of Revolutionary Historical Sites, whose secretary is Kang Yong-hyon.

It is a well-known fact that Kim Il-song established the Mangyongdae Revolutionary School in 1947 after the liberation to take care of the children of anti-Japanese comrades. The so-called bereaved children of revolution whom he "adopted" from Manchuria and within North Korea are now in major positions of the party, government, and army, which are the core of the power, after taking elite courses at Mangyongdae School and Kim Il-song University and abroad in former Soviet Union and Eastern Europe. It is similar to "Hanahoe" which is a political officers group brought up by Former President Pak Chong-hui to protect his establishment.

According to Mr. Kang, a graduate of the first class of the Mangyongdae Revolutionary School, Kang Song-san studied at the Kim Il-song University and also in Czechoslovakia. Mr. Kang said: In particular, Kim Il-song organized the so-called "Loyal Guards Company" composed of bereaved children of the revolutionary fighters, who were students of the Mangyongdae Revolutionary School, during the Korean War. They had been "systematically fostered by Kim Il-song." They are: Kang Song-san, premier; Yon Hyong-muk, former premier; Kim

Hwan, vice premier; Yi Kun-mo, former premier; O Kuk-yol, director of the Operations Department of the party Central Committee; Yi Pong-won, deputy director of the General Political Bureau of the military; Choe Sang-uk, commanding officer of the Artillery Command; Kim Kuk-tae, secretary of the party Central Committee; Kim Tu-nam, member of the party Central Military Commission [title as published]; and Kim Si-hak, whose post is not known and 110th on the funeral committee list. It seems that they will back up the Kim Chong-il system "with loyalty from generation to generation."

The Main Enemy of Economic Difficulty Is the Team Spirit Exercise

The two defectors were unanimous in predicting an uncertain Kim Chong-il system and showing a negative attitude about the possibility of a breakout of power struggle. This is seemingly because there is a firm supporting base for Kim Chong-il. In particular, as to the background of why an official announcement about succession to power is being delayed even though the post of the head of state has been empty for 20 days, Mr. Kang said: "No matter how late the succession to the posts of the president of state and the chairman of the party Central Military Commission may be, the power will not go elsewhere. This is because Kim Chong-il has already assumed the reins of power."

According to Mr. Kang, the expected change in North Korea's power structure is quite contrary to general speculations. That is to say, O Kuk-yol will replace the second-ranking O Chin-u, and accordingly, either O Chin-u or Yi Chong-ok will assume the symbolic post of the president of state. But, O Chin-u will desperately excuse himself from the post by stressing the need to concentrate power. Therefore, the question of who will assume the post of the presidency has nothing to do with a power struggle.

This notwithstanding, Mr. Kang pointed out: "Since he has to solve the food shortage and economic difficulty by himself, Kim Chong-il must feel a burden upon his shoulders."

To the question about the prospects for the Kim Chong-il system, the two men predicted unanimously that unless Kim solves food shortage and economic difficulty, the system will fall in the near future. In particular, Mr. Kang said emphatically: "It is no exaggeration to say that 70 percent of the civilian economy is completely dead." As an example, he cited Chongjin Chemical Textile Plant, whose operation was discontinued in 1991, and Kim Chack Iron Works, only one of whose three furnaces is in operation. Mr. Kang provided the following diagnosis: "While I cannot pinpoint the life span of the Kim Chong-il system as lasting two or three years, I feel that if he cannot break through the economic difficulty, his system will fall." Furthermore, our attention is drawn to the assurances of Mr. Cho, whose father was minister of construction of the State Administration Council for

15 years until last May, that: "All cabinet members of the State Administration Council clearly desire opening up." He stressed that while differences may exist in organizing and reflecting their opinions in practice, "I can assure you that all the ministers of the State Administration Council feel that the most urgent question in solving economic problems is opening up."

What is noteworthy in connection with the background of North Korea's serious economic difficulty is the following testimony about the ROK-U.S. joint Team Spirit exercise: "Whenever the Team Spirit exercise is conducted, a huge loss is inflicted upon North Korea, because North Korea does not regard the exercise as defensive, but as an offensive exercise against it. Subsequently, when the exercise begins, the whole of North Korea is put on emergency alert; members of the Red Worker-Peasant Militia will completely leave their plants and cooperative farms to occupy positions in the hills; and college students, too, will take up positions in the military training corps. Such being the case, there cannot be a good harvest. Crude oil is the most valuable resource in North Korea. Only when fuel is supplied, can tractors and any other agricultural equipment be operated to till paddies and sow seeds. Every time a Team Spirit exercise started, combat equipment of the People's Army were fully mobilized for maneuvers. Since crude oil is used for maneuvers, the North Korean Government could not supply oil to farms. In addition, cooperative farm members cannot engage in farming because they have to participate in Worker-Peasant Red Guards exercises."

Mr. Kang particularly pointed out that last year when a semi-war state was declared due to the Team Spirit exercise and the conflict between the North and the United States reached an extreme over the nuclear issue, the situation in North Korea was so hard that even Premier Kang Song-san said "we cannot keep up for long if things continue like this."

According to Mr. Kang, Kim Chong-il was very ill in the second half of the year because he was overworked. He gave instructions for the North Korea-U.S. talks by staying day and night in the office building of the party Central Committee when the crisis between North Korea and the United States reached its culmination. Mr. Kang attributed Kim Chong-il's such moves to the crisis awareness that "the United States may attack North Korea's local areas in case the North does not return to the Nuclear Nonproliferation Treaty."

To prove his allegation, Mr. Kang provided the following as an example. He said every department of the North Korean government was put on emergency alert and ordered North Korean intelligence agents to collect all information regarding

- 1) the chances of a real attack from the United States;
- 2) the likelihood and degree of Chinese assistance in case a war breaks out; and

3) China's exact stance regarding nuclear inspections.

In connection with this, he said he had witnessed a scene at the borderline area in Yanbian where instructors of a second division of the Foreign Intelligence Investigation Department of the party Central Committee were receiving reports from the agents who had been dispatched to China. According to Mr. Kang, the Foreign Intelligence Investigation Department is in charge of collecting information and submitting reports that will help Kim Il-song and Kim Chong-il set up their domestic and foreign policies. In the case of China where the department has dispatched dozens of intelligence agents, the vice director of this department works as a counselor at the North Korean embassy. This shows how important China is to North Korea in sustaining its system.

Nuclear Development Is for Defense and Economic Recovery Purposes

As mentioned before, Mr. Kang said "I heard it from an official of the State Security and Defense Department responsible for guarding the nuclear facilities in Yongbyon in October 1993 that North Korea already possesses five nuclear bombs." Mr. Kang said that as he was close to Cho Sun-paeck, the director of the State Security and Defense Department, and Cho's son worked with him at the same company, he met the official responsible for guarding the nuclear facilities in Yongbyon at a hotel in Pyongyang to hand over goods, such as beer and cigarettes, that were needed for the wedding ceremony of the official's son. Mr. Kang said the official made the remark while dining with him.

According to the official's remark as revealed by Mr. Kang, while North Korea's original goal is to possess 20 nuclear bombs, if the goal is not attained by 1994, they will stop at around 10 or so, then announce the possession of the nuclear bombs. While we have no way to confirm his startling allegation, there seems to be some truth in his story that he heard this information from the official of the State Security and Defense Department responsible for guarding the nuclear facilities in Yongbyon.

The most important passage in the information disclosed by Mr. Kang, however, is the purpose of North Korea's nuclear development. Mr. Kang summarized the purposes of North Korea's nuclear development into two.

"Kim Chong-il regards nuclear weapons as the only means for maintaining his system. In particular, he considers that nuclear weapons can solve the present food shortage and recover the difficult economic situation, because there are more munitions plants than nonmilitary industry plants in North Korea and he thinks that in order to turn the munitions plants into nonmilitary industry plants, having nuclear weapons is a must."

In other words, Kim Chong-il thinks that only by possessing nuclear weapons can the money invested in munitions plants be reduced and, can that money, in turn, be spent on improving the people's living. This is precisely Kim Chong-il's basic objective.

His second objective is that with the collapse of the socialist countries in East Europe, North Korea has changed its strategy from an offensive one to a defensive one. In other words, to avoid an attack from the United States it is imperative to possess nuclear weapons. I think that once North Korea completes its nuclear development, it will proceed with a confident attitude of "Attack us if you dare."

In a nutshell, Mr. Kang's remarks mean that North Korea is attempting to possess nuclear weapons as a means to solve its economic difficulties and to defend itself from the United States. This is considerably removed from the general understanding that observers have had thus far.

While the effect the Team Spirit exercises have on North Korea and the objective of North Korea's nuclear development were alluded to occasionally by North Korean defectors, this is the first time they were revealed in such detail.

Through this news conference, the two defectors eventually presented our government with an important "option." In other words, the option is whether our government should continue to push North Korea to a point where its system is collapses or whether our government should clarify that it has no intention to attack North Korea by taking an gesture of declaring the suspension of the exercises, thereby leading North Korea to the road of opening up and reform.

Turning away from this basic option, however, South Korea appears to be sticking to the problem of how many nuclear bombs North Korea has, which cannot be confirmed at present. Some press organs have even taken issue with the fact that the Agency for National Security Planning—which must have known in advance of the contents of Mr. Kang's "shocking remarks on the nuclear bombs"—failed to inform the United States in advance of such contents. Furthermore, the assumption of a critical attitude by the government and the majority of the press towards the dispatch of U.S. President Carter to North Korea by the U.S. Government seems to contradict their objectives.

Some people have taken issue with the timing of the news conference. This appears to be appropriate. The opinion on why the news conference to reveal the defector's remarks on North Korea's nuclear bombs was held on 27 July, of all days, may be more appropriate than the opinion on why the news conference was held on the eve of the North Korean-U.S. talks.

Even during the mourning period of the death of Kim Il-song, North Korea held a military parade to celebrate

its "war victory anniversary" and ceremonies were held to mark the day at the 8 February Cultural Hall, thus presenting "a show of arms" against South Korea. The same day, the ROK Government demonstrated "the superiority of its system" through the news conference of the two North Korean defectors, one a son-in-law of the

prime minister of North Korea and the other an instructor at Kim Il-song University.

As long as such "reciprocity" continues, North-South relations will be destined to continuously proceed on parallel lines.

CZECH REPUBLIC

Article Alleges Nuclear Material Smuggled in 1991

AU3008113294 Prague LIDOVE NOVINY in Czech 25 Aug 94 p 1

[{"gag, il"}-attributed report: "The Czech Republic Cannot Avoid Nuclear Crime"]

[Text] Prague—Nuclear crime, which has again become a topic for discussion after the recent seizure of 300 grams of smuggled plutonium 239 at Munich airport, affected Czechoslovakia for the first time shortly before its partition. LIDOVE NOVINY obtained this information from the special services analysts.

An Interior Ministry rapid deployment unit and military police were deployed at Mosnov airport on 29 August 1991. The impetus for the action was a report that containers with so-called red mercury were allegedly concealed in the hangars. This substance is unknown, however, to the physicists of the Rez Nuclear Research Institute, for instance, and they describe it as nonsense, although the then federal ministers of the interior and defense used its existence to explained the Mosnov action. The ruthless intervention did not, however, bring any results—the red mercury was not found, and the people who were supposed to transport it across the Czech territory were not detained. Speculation emerged immediately thereafter about whether the intelligence services of the Interior Ministry and the army had not been the victims of a provocation. LIDOVE NOVINY information from sources close to intelligence circles indicates that is a definite possibility. The provocation was apparently prepared through a Czech citizen by several officers of the former Soviet Central Group troops who cleaned up after the Soviet Army in Oломоуц. The Ministries of the Interior and Defense justified their conduct in the defense of the action by having

obtained reports from several mutually independent sources. It is only emerging now that it was not true. It was a single, moreover questionable source. The special services analysts are convinced that the motive for the provocation was to check their capability, the possibilities for disinformers, and also to map the optimum transition channels. A genuine transaction allegedly took place concurrently with the provocation, and it was perfectly camouflaged by the Mosnov chaos. It could have been the transport of fissionable material or USSR military technology, in which the heads of the local secret services began to trade ahead of the others. The smuggling of decagram quantities of plutonium 239 (the Munich detection) is described by both scientists and intelligence agents as "chuckle crime" in comparison with the several year old deals involving dozens of kilograms of fissionable substances. They admit, however, that the intercepted grams may serve as samples that would be followed by larger shipments, or it might be just a search for illegal trade routes.

POLAND

Cabinet Accepts Draft on Ratifying CW Convention

LD1608165394 Warsaw PAP in English 1509 GMT 16 Aug 94

[Text] Warsaw, Aug. 16—The cabinet accepted Tuesday a draft law on the ratification of the international convention banning the production, use and research into chemical weapons and ordering the destruction of chemical weapons stocks.

The convention was signed in Paris in January 1993. As many as 157 countries signed the convention.

It will come into force when at least 65 states have ratified it, but not earlier than two years after the signing date.

In Poland the president ratifies such agreements after the Sejm has agreed to accept ratification.

BRAZIL**Itamaraty Reports Removal From Nuclear 'H List' by Germany**

PY1808204894 Sao Paulo O ESTADO DE SAO PAULO in Portuguese 18 Aug 94 p 1

[Text] According to Itamaraty, Germany announced yesterday that Brazil had been taken off of the "H List"; that is, the list of countries that are prohibited from receiving sensitive technology. Brazil may now purchase nuclear items and technology for civilian and military use. Nuclear energy will be exclusively used for peaceful purposes.

Nuclear, Space, S&T Notes

94P21106Z

[Editorial Report]

ABACC Team Inspects Navy Nuclear Center

Technicians from the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) conducted inspections of the Navy Ministry's nuclear facilities in Ipero, Sao Paulo State, during the first week in August. According to ABACC Secretary Jorge Coll, no irregularities or diversion of nuclear materials were observed. The ABACC maintains a regular schedule of inspections of the nuclear installations of Brazil and Argentina, in accordance with an agreement signed with the two countries and with the International Atomic Energy Agency (IAEA) in March 1994. Some of the inspections are conducted solely by technicians from ABACC. (Sao Paulo GAZETA MERCANTIL 5-7 Aug 94)

Mayor Speculates on Nuclear Center's Deactivation

The Navy Ministry has given the mayor's office in Ipero, 130 km from Sao Paulo, until the end of July to vacate the buildings the ministry had originally provided for use in establishing services in the areas of public security and social assistance. The eviction will affect the buildings housing the Social Solidarity Fund Center, the residence of the police chief, and two houses used by the military police. Ipero Mayor Marcos Andrade (Brazilian Democratic Movement Party-PMDB) viewed the Navy Ministry's recall of the buildings as the rupture of a partnership that had existed between the Navy Ministry and the mayor's office since the Aramar Experimental Center (CEA) was inaugurated in 1988. The Aramar facility is the site where the Navy develops its principal projects for the Brazilian nuclear program and nuclear submarine construction. According to Andrade, the Navy Ministry has now stopped hiring workers in the city, and has reclaimed roughly 50 houses that were being used by senior employees of the CEA. Andrade observed that there are indications that the CEA is gradually being deactivated, adding: "We don't know what is going on, but it is certain that changes are taking place in the philosophy of Aramar's administration." Neither

Admiral Othon Luis Pinheiro da Silva, president of the Coordinating Center for Special Projects which administers the Aramar nuclear facility, nor Navy Minister Ivan Serpa could be reached for comment. (Sao Paulo O ESTADO DE SAO PAULO 19 Jul 94)

Timetable of SLV Project Delayed

Since its beginning, the development of the Satellite Launch Vehicle (SLV) by the Aeronautics and Space Institute (IAE) has been continuously hampered by obstacles occasioned by international embargoes of technology transfer and lack of funding. The rocket's development is part of the Complete Brazilian Space Mission (MECB), whose objective is to launch satellites that are built domestically by the National Space Research Institute (INPE) from a launch site located in Alcantara, Maranhao State. Despite the difficulties, the IAE anticipates that the rocket will be ready by the end of 1995. According to IAE Director Tiago da Silva Ribeiro, "the timetable for development will depend on the release of funds," adding that the minimum budget projected for the SLV project in 1994 was \$9 million. Since the funds can't be released until the government's budget is approved, he continued, the IAE is depending on funding from privatizations of public enterprises. Ribeiro further remarked that although the Science and Technology Ministry designated \$40 million for the SLV, the IAE has only received \$500,000 this year.

In the last three years, the SLV project has been operating with a budget of less than \$10 million. According to Ribeiro, the monies from privatizations will be essential to contracting firms between now and the end of the year to develop the rocket launch tower on the Alcantara base, adding that the proposals will be submitted by 26 August.

Brazilian Space Agency Plans for 1994

The Brazilian Space Agency (AEB) will be operating at full capacity within three months, according to AEB Director General Ajax Barros de Melo. The AEB'S plans for 1994, he said, are to engage universities and broaden scientific cooperation with other countries, continue launching data collection satellites (SCD), and complete the SLV. An international bid for the launch of the SCD-2 will be published by the end of 1994. The launch is projected to take place in March 1995, and the SCD-2 project is now under development by INPE. The SLV should be completed in 1996. The other satellites planned in the Brazilian space program will depend on the domestic development of some technologies, since there are international restrictions on importation.

Another AEB plan is to enter the international market for launching small satellites of up to 400 kilos from the Alcantara base in Maranhao, a market in which Brazil has only a 0.04 percent share, according to Melo. "The base has great possibilities of generating sufficient income to maintain and complete its infrastructure," he said. At the present time, he pointed out, France has 60

percent of the market for launching geostationary telecommunications satellites; the cost of launching a geostationary satellite ranges from \$60 million to \$100 million. The AEB director cautioned, however, that the AEB's hopes of entering the international market will depend on the completion of the SLV which has been under development since the 1970's. "If it is ready by 1996," he said, "Brazil will have an opportunity to offer the Alcantara base as a launch site option."

Melo went on to say that even with Brazil's adherence to the international Missile Technology Control Regime (MTCR), which regulates the transfer of sensitive technologies to developing countries, the picture involving restrictions on imports has not improved. Nor has the signing of the Tlatelolco Treaty banning nuclear weapons in Latin America and the Caribbean facilitated access to those technologies. He then added: "There are economic interests in this process that are larger than a mere concern with the acquisition of military technologies by the Third World," and, for that reason, Brazil will have to develop its own research projects. (Sao Paulo GAZETA MERCANTIL 27 Jul 94)

AEB Begins Operating Amid Financial Woes

The AEB officially began operating on 14 July amid serious budgetary problems. The agency, which is connected directly to the Presidency of the Republic

and will centralize all planning and implementation associated with monitoring and launching satellites and rockets, was created by law in 1994, but was left out of the government's budgetary allotment sent to Congress in early 1994. At a ceremony swearing in the AEB's superior council on 14 July, AEB President Luiz Gylvan Meira Filho remarked that the resubmission of the Union General Budget to Congress during the last six months made possible the creation of a category designating \$19 million for the establishment of the AEB and the implementation of its most important project, the MECB. The MECB had previously been administered by the Armed Forces General Staff (EMFA).

Another \$20 million, however, continues to be held within the EMFA, and would have to be transferred to the AEB in order for the timetable for completing the MECB's projects to be met. Filho added that transferring those budgetary funds will involve some work administratively, and asked the representatives of the Finance Ministry and Planning Secretariat present to lend their assistance. He also asserted that the AEB has the authority to revise all of the agreements that the government has already signed in the space sector, if the Council deems it appropriate. (Sao Paulo GAZETA MERCANTIL 15-17 Jul 94)

REGIONAL AFFAIRS

Indian Editorial Assails Pakistan's 'Stealing' of Nuclear Technology

BK2208124594 Delhi NAVBHARAT TIMES in Hindi 20 Aug 94 p 6

[Editorial: "The Stolen Bomb"]

[Text] Those keeping a vigilant eye on Pakistan's nuclear program will not be surprised about its attempts to procure plutonium from Russia through smuggling. In fact Pakistan's entire nuclear program is built around stealing nuclear material and technology. First of all, a Pakistani scientist stole nuclear technology from Holland. Under the garb of various fictitious firms, Pakistan has been clandestinely procuring nuclear material. Many Pakistani agents have been nabbed in this connection in the United States and other Western countries. Recently, a German, two Poles, and a Pakistani national were arrested in Germany. They appear to have been running a smuggling racket for a long period of time. Although the quantity of plutonium recovered is not more than a few grams and type of bomb that was dropped on Hiroshima also needed about six kg of plutonium; yet this seizure of smuggled plutonium completely belies the Western belief that Pakistan has capped its nuclear program for some years. They suspect that Pakistan is continuing with another secret program and has employed its agents to obtain plutonium through smuggling. If this is the case, it is indeed very serious and the Government of India must raise this issue before the five nuclear nations. Although Russia has denied any theft of its nuclear material, a chemical lab test can easily trace its source of procurement. This smuggling has laid bare the futility of efforts toward the Nonproliferation Treaty [NPT]. If such smuggling continues unchecked, what is the utility of having the NPT and or the Missile Technology Control Regime?

Despite Russia's denial, it appears that the plutonium was stolen from Russia only because the plane on which this plutonium was recovered in Germany came from Russia. German Chancellor Helmut Kohl has warned Russia and the German foreign minister will visit there soon to discuss the issue. It is widely believed now that the smugglers made inroads into the security arrangements around the Russian nuclear installations, which pay very inadequate salaries to their workers. It is suspected that they must have been "bought" by the smugglers. The most dangerous possibility is that this material could reach terrorist groups through the same conduit. Western countries are expressing apprehension about such an eventuality, including Germany. Now the United States must put pressure on Russia to force it to beef up security arrangements around its nuclear installations to prevent such dreadful material from falling into the hands of terrorists or terrorist States like Pakistan.

INDIA

Trishul Surface-to-Air Missile Test Successful

94WP0137 Madras THE HINDU in English 3 Aug 94 p 14

[Text] New Delhi, Aug. 2—Successful user trials of India's first indigenously built short range surface to air missile, Trishul, took place on Monday, according to a Defence Ministry press release.

Six more flight tests of the system are planned as part of a series of developmental launches.

The high-speed weapon, which is radar guided, will add a new dimension to the ability of the Army and the Indian Air Force in shooting down low flying targets. The range of the flexible missile can be altered from a minimum 500 metres to a maximum 9 km.

Trishul will make the inner ring of an interlinked two-tier air defence system of the future. The outer ring will be made of the Akash missile, still under trial. The long-range Akash has an ability to strike at a maximum 36 km distance. Together, the two systems can provide a highly effective multi-level air defence cover.

The weapon carries a 5.5 kg warhead which explodes close to the target with the help of an electronic detonator.

The missiles are carried in a bunch of six on an engine driven tracked chassis. Trishul's mobility allows it to move with mechanised columns made of tanks and armour protected troop carriers to defend them against air strikes. Mechanised columns are currently defended by the less capable Soviet origin OSA-AK systems, which the Trishul will eventually replace.

A naval version of the Trishul is also undergoing tests. The ship based variant can shoot down missiles such as the Exocet and Harpoon which Pakistan holds. The projectile will travel 7 metres above water when guided by a radio altimeter.

One of Trishul's two sophisticated ground based radars can pick up the target as small as a single fighter aircraft at 9 km. After the object has been spotted, another radar which can trigger the missile firing mechanism takes over. Control systems on the weapon respond to the commands issued by radars to direct its flight path.

Trishul's engine uses high energy yielding solid fuel to power the projectile rapidly towards target. The high mobility makes Trishul a "quick reaction" missile.

Interest in Peaceful Use of Nuclear Energy Stressed

94WP0138 Calcutta THE STATESMAN in English 26 Jul 94 p 8

[Article by Satyabrata Rai Chowdhuri: "Atom for Peace: Need To Have Nuclear Arsenal"]

[Text] The possibility of using a nuclear explosion for civil work was recognized by witnesses to the first demonstration of nuclear explosion by the United States at Alamagordo on July 16, 1945. In 1956, the United States began to examine the possibilities very seriously.

Two factors were partly responsible for this. First, the theory of explosion effects gained strength with the introduction of computers and their ability to obtain solutions to complex theoretical problems. Secondly, advances in the design of thermonuclear explosives made it possible to think of "cleaner" explosions with only a small fission component and, consequently, fewer fission products. This decreased the potential radiological contamination from nuclear explosions.

Thus, the effort to find ways of harnessing the force available in nuclear explosives to help conquer nature and obtain more of her treasures culminated in the adoption of "Plowshare" in the United States.

Useful Projects

But "Plowshare" had a generally hostile reception at the second United Conference on Peaceful Uses of Atomic Energy in 1958. There was, of course, no apparent opposition at the third conference in 1964 where scientists G.W. Johnson and G.H. Higgins of Lawrence Radiation Laboratory, Livermore, California, presented a paper, "Engineering Applications of Nuclear Explosive: Project Plowshare." They said: "As a consequence of experience gained in design and test of nuclear explosives over the past 20 years and in view of the more recent assessments of potential engineering and scientific applications, there is no doubt that many useful projects can be planned for accomplishment in the near future."

Scientists from the United Arab Republic showed interest in the nuclear excavation of a canal from the Mediterranean Sea to the Quttara Depression to generate power. Israeli scientists were interested in a canal from the Gulf of Aquaba to the Red Sea. Brazil, India, Romania and France were other nations interested in a general way without specific projects in mind in 1964. Australia expressed its keen interest in the use of nuclear explosives to excavate harbours on her west coast. That was how, gradually, the idea of using nuclear explosives for civilian use caught the imagination of nations.

One of the reasons for opposition to the non-proliferation treaty by developing countries was the hope raised by the potential of new technology for peaceful nuclear explosions. During the negotiations on the proposed treaty to stop proliferation of nuclear weapons, India along with other non-nuclear weapons states insisted that the treaty must not interfere with their right to make peaceful use of nuclear energy. India refused to subscribe to the treaty on the ground that, by denying even the peaceful nuclear explosive technology through the non-proliferation treaty, the nuclear weapon states were discriminating against the non-nuclear weapon countries.

India's interest in peaceful nuclear explosions dates back to the third U.N. Conference on the Peaceful Use of Atomic Energy. Immediately after the conference, Dr Homi Bhabha, addressing the eighth general conference of International Atomic Energy Agency on September 17, 1964, said that there was no reason why the benefits of using atomic explosions in civil engineering works should be denied to mankind so long as such explosions were subject to international supervision. Broadcasting over All India Radio on U.N. Day, October 24, 1964, he again alluded to the potentialities of peaceful nuclear explosions for economic benefits.

A month later in the Lok Sabha, the then Prime Minister, Lal Bahadur Shastri, referred to the possibility of using peaceful nuclear explosions to make tunnels and blast mountains and stated that the Indian Atomic Energy Commission was not only seized of the problem but was already working on it.

Chinese Test

Between the third international conference on peaceful uses of atomic energy and the declaration of active interest by the Indian Atomic Energy Commission in the application of peaceful nuclear explosions, an important development took place which put pressure on the Government of India to change its policy of peaceful uses of nuclear energy. It was the first nuclear test by China on October 16, 1964. That posed a grave security threat to India and provoked a national debate in the country.

The furious controversy over the question whether India should match the Chinese atom bomb with a nuclear deterrent of its own cut across party lines. Even the Congress, which was sworn to the use of atomic energy for peaceful purposes, seemed to be divided while the Jana Sangh wanted India to go nuclear militarily. The Swatantra Party reflected two different opinions: that India should produce its own nuclear deterrent and that the country should come to a "protective arrangement" with the United States and Britain. The Socialist Party was also divided. Communist leaders were strongly opposed to India's manufacturing nuclear weapons or asking for protection from Western powers.

The Government argued that the Chinese threat to the security of India was conventional and would be met at that level. It, therefore, refused to be pushed into a situation of no return and stuck to its policy of peaceful uses of nuclear energy.

Sensible Policy

Since Shastri's disclosure that Indian scientists were experimenting with peaceful explosions of nuclear devices, India has been consistently following this sensible policy. During this period it has repeatedly declared that it is against the proliferation of nuclear weapons. But it has been asserting its right to acquire nuclear

technology. Thus, India distinguishes between the proliferation of nuclear weapons and proliferation of nuclear technology.

Though India's industry, agriculture and medicine have been benefited from the peaceful uses of nuclear energy, the application of this technology has not yet been made on a large scale. But, since a sophisticated infrastructure for the atomic energy programme has been built, there is no doubt that the peaceful applications of nuclear energy will radically improve the socio-economic condition of the country in the near future.

While use of nuclear energy for peaceful purposes is a sensible policy, India should not ignore the security environment in this part of the world. Apart from the China factor, Pakistan is hellbent on acquiring its own nuclear bomb. A nuclear Pakistan will no doubt acquire military parity with India whether or not India is armed with nuclear weapons. This hypothesis leads to the logical argument that India must acquire in the shortest possible time a nuclear arsenal and a delivery system far superior to that of Pakistan. Thus, while "atom for peace" is India's motto, acquisition of a nuclear arsenal is a necessity.

U.S. Role in Mideast Nuclear Proliferation Questioned

94WP0139 Bombay THE TIMES OF INDIA in English
2 Aug 94 p 14

[Article by K. Subrahmanyam: "The Islamic Bomb: U.S. Silence on Saudi Effort"]

[Text] The story in THE SUNDAY TIMES of July 24 about Saudi Arabian funding of the Pakistani nuclear programme is not a new revelation. As far back as 1980 Khalid Hasan, former press secretary of Z.A. Bhutto, stated in a BBC interview that the Pakistani nuclear programme was being funded by Libya and Saudi Arabia. Maulana Kauzar Niazi, in his book, *Aur Line Cut Gaye* (The line got cut), had also mentioned funding by the oil-rich states. In their book, *Outlaw Bank* Jonathan Beatty and S.C. Gwynne on the staff of the TIME magazine claimed that the Bank of Credit and Commerce International run by Pakistani staff with Arab money was one of the financiers of Pakistan's bomb project.

When Z.A. Bhutto called the bomb the Islamic bomb, he was not just being sentimental; his statement signified that the support for the programme came from many Islamic countries. His reference to the bomb in civilisational terms—why Islam should not have it when the Christians, communists, the Jews and Hindus had it—found a ready echo in a number of oil rich countries in West Asia.

Then came the purchase of CSS-2 missiles by Saudi Arabia from China. The CSS-2 missiles with their range of 2,700 km and their enormous costs in tens of millions of dollars made no sense except as nuclear weapon

carriers. It is not difficult to imagine which country will be the source of nuclear warheads for Saudi missiles in case they decided to use them. Nor is it a surprise that the Saudis, according to the SUNDAY TIMES story, financed the Iraqi nuclear weapons programme too. The Saudis bankrolled Mr Saddam Hussein's aggression against Iran and it was logical for them to finance his nuclear programme as they did Pakistan's.

Close Involvement

None of this is startling news for those who follow nuclear proliferation developments closely. What is of relevance in all these disclosures about Saudi Arabia is the close involvement of the United States with the desert kingdom. Usually Libya has been denounced as a potential proliferator but there has been no adverse mention of Saudi Arabia in the U.S. government or congressional circles in spite of its purchase of CSS-2 missiles or its financing of the nuclear programmes of Pakistan and Iraq.

Now enough information has been made public of the U.S. administration issuing misleading certification to the U.S. Congress on Pakistan's nuclear weapon capability during 1987, 1988 and 1989. The books *Outlaw Bank* and *Bear Trap* by Brigadier Yousaf of the Inter-Services Intelligence of Pakistan, outline the close linkages between the CIA [Central Intelligence Agency] and the ISI [Information Service of India]. All this raises serious questions about the American role in nuclear proliferation in this part of the world. It is now widely known from literature published in the United States and the article written in *Muslim* of December 12, 1993, by General Aslam Beg, the former chief of army staff of Pakistan, that the United States was prepared to accord a higher priority to sustaining the war against the Soviet Union in Afghanistan than to its non-proliferation objectives with reference to Pakistan. The Pressler amendment of 1985, was an ingenious device to permit Pakistan to go ahead with its nuclear weapon development even while drawing on American military and economic assistance. This came to an end only in 1990.

Lenient Attitude

It is also well-known that a lenient attitude was adopted towards Mr Saddam Hussein when he used chemical weapons against Iran in 1983 in violation of the Geneva Protocol of 1925. Mr Saddam Hussein was also able to get credits from Banco Nazionale del Lavoro in Atlanta in the United States and that enabled him to purchase further arms for his invasion of Kuwait. THE SUNDAY TIMES story talks of discussions between the Saudis and the Iraqis on the continued financing of the Iraqi nuclear programme in 1989. One would have thought that after the Saudis obtained the CSS-2 missiles, the United States would have kept a close watch on their search for nuclear warheads. The apparent U.S. failure to obtain prior intelligence about the Saudi-China missile deal or on the Saudi financing of the Pakistani and Iraqi nuclear

programmes raises serious questions about U.S. intelligence agencies' capability to monitor such developments. It is now well-documented that the U.S. agencies failed to monitor the situation in Iran adequately and that the United States was taken by surprise by the rapid developments leading to the downfall of the Shah. It is quite possible that the same is the case in respect of U.S. knowledge of the proliferation developments in West Asia, especially those involving Saudi Arabia. Or the United States may have decided to subordinate its non-proliferation goals to the need to maintain cordial relations with the Saudi kingdom. In either case it is no comfort to India whose security is affected by the nuclear proliferation developments in West Asia.

THE SUNDAY TIMES story also mentions Saudi Arabia's interest in 'Red Mercury' from Russia. It is now established that at best 'Red Mercury' may help to improve the performance of conventional explosives but is not a fissile or fusion material. But the story tends to confirm fears expressed by India as early as January 1992 in the Security Council summit that the breakdown of the Soviet Union might lead to leakage of fissile materials and bomb-making expertise to countries that could afford to pay exorbitant prices for them. Unfortunately U.S. attention appears to be exclusively focused on Iran and not on other possible candidates for proliferation in West Asia.

Any discussion on the nuclear proliferation issue in southern Asia has to take into account all these developments. Hence the Indian response to the U.S. suggestion about a narrowly focused dialogue restricted to India and Pakistan was that it would be inadequate and other countries must be involved. That response was made without taking into account the possibilities of nuclear proliferation by countries like Saudi Arabia. Nor did the Indian response at that stage attempt to explore the reasons underlying the misleading certification of the United States.

Administration to Congress for three successive years from 1987 to 1989, U.S. officials and academics feel that India has been buying time for the last two years and wants to prolong the dialogue with the United States without grappling with the issue as formulated by the latter. They may well be right. India does not tell the American officials that the U.S. administration does not command any credibility in this country on the genuineness of its commitment to non-proliferation.

Congress Misled

It is now established beyond all doubt that during the Reagan and Bush administrations the United States deliberately misled their own Congress on the nuclear issue in respect of Pakistan and looked away as Pakistan continued to develop its nuclear weapons. The Clinton administration has not so far started on genuine confidence-building measures to convince India that it is not likely to follow the Reagan-Bush policies. The first step

in that confidence-building is for the U.S. administration to develop transparency on the issue *vis-a-vis* the Congress itself. No one in India is going to believe that the U.S. administration is likely to be more honest *vis-a-vis* this country than it is to its own Congress. The Clinton administration must explain in its dialogue with India the circumstances leading to the misleading certification, the ECCI [Bank of Credit and Commerce International] linkage and its silence on Saudi Arabia before it can expect India to engage in meaningful discussion on the nuclear issue.

No doubt it is not possible for the U.S. administration to say many of these things in public but there are ways of communicating them in private. On this issue the United States and Indian postures cannot be equated. The U.S. policy on non-proliferation in Asia affects Indian security while the Indian nuclear policy has no impact on U.S. security. Therefore, the onus of establishing credibility is on the United States, and not on India.

Paper Finds Motive Behind Bhutto's Missile Proposal

BK2208152894 Delhi NAVBHARAT TIMES in Hindi
17 Aug 94 p 7

[Article by Ranjit Kumar]

[Text] New Delhi 16 August—The prime ministers of India and Pakistan have for the first time mentioned missiles in their independence day speeches. While Benazir Bhutto adopted a soft stand on the missile issue, Narasimha Rao expressed a tough attitude. Benazir Bhutto said that both countries should practice the zero missile regime, meaning both countries should not possess any missiles. Narasimha Rao said that nobody raises a finger when Pakistan buys off-the-shelf missiles, but India is told that its laboratory experiments with certain missiles will lead to nuclear proliferation in South Asia. Rao added that India will not slacken its defense preparedness. In the context of the missile issue, it could mean that India will continue to develop and deploy missiles. On the other hand, Benazir Bhutto while talking about a zero missile regime has not only tried to present Pakistan in a nonproliferation image, but has also strived to please the United States.

The United States also wants to see an end to the missile race in South Asia, as well as India and Pakistan give up their missile programs. Narasimha Rao has, however, directly taunted the United States because when Pakistan was acquiring missiles from China, the world did not pay any attention. Pakistan has not only "developed" missiles of the Hatf-1 and Hatf-2 series, but has deployed them as well. Hatf-1 and Hatf-2 have a range of 70 km and 120 km respectively. However, everyone knows that if it was technically ill-equipped Pakistan could never "develop" such missiles. Pakistan has also purchased longer range M-11 missiles from China and have deployed them. These missiles have a range of 300 km. Other than this, Pakistan is engaged in "developing"

600 to 800 km range Hatf-3 missiles. In fact, for Pakistan the word "development" means assembling missile parts acquired from China.

The supply of M-11 missiles to Pakistan has been accepted not only by China, but by the United States itself. However, both countries say that Pakistan has only acquired certain spare parts and technology. Under the Missile Technology Control Regime [MTCR]—the brainchild of the United States and the West to prevent the proliferation of missile technology—the United States also imposed sanctions on Pakistan and China for this. However, the U.S. sanctions against Pakistan proved only symbolic, while the sanctions against China have already been lifted. The result is that the way Pakistan clandestinely acquired technology and materials for nuclear weapons, deliberately overlooked by the United States and the West, it used similar methods to acquire missile spare parts and technology along with off-the-shelf missiles from China. Prime Minister Narasimha Rao in his 15 August address specifically emphasized this fact and said that no finger was raised while Pakistan was doing all this.

Pakistan's strategy, perhaps, behind acquiring these missile has been that since it is too weak when compared with India in conventional weapons, is that missile capacity can fulfill this shortcoming. When Pakistan decided to deploy these missiles, India was only carrying out experiments in the laboratory stage. However, Pakistani military rulers could not believe that India's indigenous research would be so successful so soon. India has not only been able to indigenously develop missiles like Prithvi and Agni, but also manufacture them within the country as well.

There is no comparison between Pakistan clandestinely buying and deploying missiles and its neighbor India developing and deploying missiles due to its own technical capability and manufacturing ability. India can continue to develop and deploy the missiles as it wishes, but due to U.S. pressure exerted under the MTCR, it is not possible for Pakistan to ask for more missiles and spare parts from China. It is also not possible for China to send unlimited missile supplies to Pakistan because it has also given a commitment to the United States regarding implementation of MTCR provisions. Meanwhile, in view of the recently improved diplomatic and defense contacts between India and China, Beijing is trying to avoid supplying more missiles to Pakistan because India has raised this issue with China in bilateral talks. Pakistan, perhaps, is also concerned about the changed Sino-Indian relationship.

In fact, Pakistan feels that if India fully utilizes its missile production facilities, there will be a great imbalance in the missile capacity of India and Pakistan. In such a scenario, Indian missiles will play a decisive role in any future India-Pakistan war. Is that the reason that Pakistan is prepared to dismantle all the missiles that it has purchased and deployed with the Chinese help? If

neither country possesses any missiles, Pakistan can compete with India in conventional weapons. Otherwise, a war fought with missiles will take a decisive turn within a few hours.

U.S. Asked To Revise Nuclear Policy Following Uranium Case

BK2208155094 Delhi INDIAN EXPRESS in English
20 AUG 94 p 8

[Editorial: "Pakistan Still At It"]

[Text] In keeping with its duplicitous record on the nuclear issue, Pakistan has once again been caught in the act, when the German police unearthed a plutonium smuggling syndicate. The source of the highly radioactive plutonium is undoubtedly the leaky Russian nuclear establishment. What is no less alarming, the destination was Pakistan, as the German officials have discovered. The Berlin catch was the fourth in as many months, and seizures are believed to account for at the most ten per cent of the material that slips through. The same must have been the ratio between the plutonium that the Germans have now caught, and that which may have managed to reach Pakistan. Then there is always the possibility of a seizure fronting as a diversion for a much bigger shipment elsewhere. Either way, it only proves that the Pakistani nuclear weapons programme continues apace, thanks largely to Pakistan's skill in piracy. The 1980s witnessed the arrests of its nuclear operatives on both sides of the Atlantic. It is clear that its involvement in this clandestine business continues in 1994.

The latest in Pakistan's long list of nefarious activities is, however, a significant departure from the past in that it involves plutonium. The most radioactive of all materials known to man, Plutonium 239 is also a far lighter substitute for uranium. Pakistan's nuclear weapons programme hitherto depended on the uranium enrichment process, a route that has apparently been at a standstill since January 1989, for reasons technical, or otherwise. It is its likely inability to master the enrichment of uranium that may have propelled Pakistan toward the Plutonium 239 option. From Pakistan's point of view, German industry was important during the 1980s when it was trying the uranium option. It is reasonably certain that it remains a vital source for the plutonium alternative as well. It is more than a mere coincidence, therefore, that Lieutenant General Asif Durrani, who had served as the Director-General of the Inter-Services Intelligence is the current Pakistani ambassador to Germany.

Going by past experience, it is unlikely that Pakistan's collusion with the newly unearthed plutonium smuggling syndicate will serve as an eye-opener to the U.S. Clinton's predecessors had found it expedient to ignore its illegal pursuit of the nuclear weapons know-how and materials. With the collapse of the Soviet Union, he has, of course, found it possible to embark on a non-proliferation drive worldwide. But in doing so, he has chosen

to equate Pakistan with India. By implication he has exonerated Pakistan of any nuclear wrongdoing. It would only be natural if the Pakistani rulers have taken this as a signal of continued American acquiescence. The case for a thorough revision of Washington's policy towards the nuclear issue in South Asia in particular has become stronger than ever before. The Pakistani involvement apart, the fact that the Soviet collapse has spawned a new nuclear mafia makes it incumbent on the U.S. to make a drastic adjustment in its non-proliferation strategy by the time the NPT [Nuclear Nonproliferation Treaty] comes up for a review in 1996.

Germany Asked To Inform on Plutonium Smuggling Case

BK2208161494 Delhi All India Radio Network in English 1530 GMT 22 Aug 94

[Text] India has expressed the hope that Germany will keep New Delhi informed about the progress of investigations and steps taken to check clandestine diversion of plutonium to Pakistan. The minister of state for external affairs, Mr. Salman Khursheed, said at a press conference in Lucknow yesterday that he requested the visiting member of German parliament, Mr. Gerhart Baum, to convey India's concern to Chancellor Kohl.

In a clarification, an External Affairs Ministry spokesman said the minister also hoped that the U.S. administration will declare Pakistan a terrorist state, taking into account the details given by Yaqub Memon, principal accused the Bombay blasts. Responding to questions, the minister reiterated India's commitment to maintain peace in the subcontinent and not to fight a war against Pakistan unless it is forced on India. He hoped that Pakistani leadership will desist from raising the Kashmir issue in international forums.

'Dangerous Repercussions' of Nuclear Smuggling Noted

BK2208103994 Delhi JANSATTA in Hindi 20 Aug 94 p 6

[Editorial: "If This Smuggling Continues?"]

[Text] The cities of Germany have become major markets for the illegal sale of smuggled nuclear and chemical weapons at the international level. The seizure in Germany of one installment of the nuclear fuel Plutonium-239, smuggled from Russia, sheds light on one very dangerous repercussion of such activities. Earlier it was suspected that with the collapse of the Soviet Union, the nuclear material stored there could be used by terrorist groups with the connivance of international smugglers. According to experts, even a small quantity of fissile material is enough to produce a small bomb or to be used to spread deadly radiation even without making a bomb. If such material falls in the hands of active Mafia gangs or terrorist groups, it might cause political turmoil in many parts of the world. U.S. nuclear experts and

security pundits did apprehend this material's possible use by the various breakaway republics of the erstwhile Soviet Union by settling their mutual disputes and dissensions. It was only to ward off such a dangerous possibility that Russia, Ukraine, and Kazakhstan were made to enter into an agreement about the preservation, possession, and maintenance of nuclear weapons. But this seizure of the smuggled nuclear material in Berlin has generated more grave apprehension. There is definite evidence of a sinister conspiracy being hatched by some countries who are behind the smuggling of this fissile nuclear material. German investigators found proof of Pakistan's complicity in the smuggling of such fissile material and equipment from Russia. In this connection one Pakistani national and two Polish citizens were been arrested in Berlin. Documents recovered from them clearly indicate that this material was on its way to Pakistan. This also confirms the suspicion that Pakistan also procured similar material earlier through other smuggling transactions.

Although Russia has denied any theft of her nuclear material according to investigations conducted by international agencies, some workers, officials, and scientists who previously worked in the now closed nuclear installations in Russia and in other erstwhile Soviet Republics are conniving secretly in these nuclear material smuggling activities. As far as Pakistan is concerned, smuggling is the very basis of its procuring material and information for its nuclear programs. When these programs began, Pakistani agents and scientists formed a widespread network to steal nuclear weapons technology, material, and equipment from the United States, Germany, and other European countries. Many Pakistani nationals have been arrested by authorities in these countries for indulging in such activities. Pakistan has already acquired technology for enriching Uranium, but many experts wonder about what purpose Pakistan needs enriched plutonium for now. In making a nuclear bomb there are two distinct processes using uranium and plutonium separately. It appears that having acquired the capacity to manufacture a nuclear bomb through the more prevalent process, Pakistan also wants to make arrangements for the alternative process. Under pressure from the West, Pakistan declared that it had postponed its nuclear program, however, the attempt to procure plutonium through smuggling clearly indicates its intention to dupe the West and continue its nuclear weapons program clandestinely. Thus, the Berlin event has also put a question mark on the credibility of the United State's Nuclear Nonproliferation Treaty [NPT]. This event not only shows the inability of the West to check the smuggling of nuclear weapons-related material, but also to convince India and other countries about the protection of their interests if they sign the NPT. Under these new developments it is imperative for Russia to ensure better surveillance of its nuclear material stores to prevent them from being stolen and smuggled.

PAKISTAN

Spokesman Denies Allegations on Plutonium Shipment

BK1808145094 Islamabad PTV Television Network in English 1400 GMT 18 Aug 94

[Text] Pakistan has expressed regrets over a statement made by a state official of Berlin regarding an alleged plot to ship illegal plutonium to Pakistan. A Foreign Office spokesman in Islamabad strongly denied reports

carried by international and foreign television networks that arrests have been made to seize radioactive material by Bonn police and said the suspicion has no base. [sentence as heard]

The spokesman categorically denied that any agency of Pakistan has attempted to acquire the plutonium. The spokesman said that constant campaign to implicate Pakistan in every clandestine activity related to nuclear matters is obviously directed by quarters with vested interests.

RUSSIA

Seized Plutonium Not From Military Stocks

94WP0135A Moscow ROSSIYSKAYA GAZETA
in Russian 17 Aug 94 p 6

[Report based on ITAR-TASS material: "Who Benefits From the Plutonium Furor?"]

[Text] The plutonium seized in Germany does not correspond in composition and purity to material from Russian military stocks.

This sensational statement was made yesterday by the American NEW YORK TIMES, quoting experts of the Los Alamos Atomic Research Laboratory (New Mexico). This opinion of the newspaper is undoubtedly at odds with the mood that has reigned thus far in the American news media on the question of the plutonium discovered in Germany.

According to data obtained from Germany and the results of its analysis conducted by experts of the Atomic Research Laboratory in Los Alamos, the seized radioactive material is not weapons-grade plutonium-239 but is a mixture of plutonium and uranium oxide. This mixture is known by the name of MOX, or mixed-oxide fuel, and is used as fuel for nuclear reactors generating electric power. As THE NEW YORK TIMES makes clear, MOX is used in such countries as Japan, France, Belgium, and Germany. Its application in Russia is still in the experimental phase.

Official spokesmen for Russian departments and nuclear engineer specialists refute the unsubstantiated charges concerning the removal of nuclear materials from Russia.

"This is an outright fabrication," Yevgeniy Mikerin, deputy minister of the Russian Federation for atomic energy, declared. "Of all the instances of the so-called 'leak' of Russian nuclear materials that the Western press has reported, only one has been confirmed thus far—uranium cakes produced in Ust-Kamenogorsk were found several years ago."

"I believe," Ye. Mikerin emphasized, "that the furor that has been kicked up has purely economic underpinnings: In persuading the world of the absence of proper control at Ministry of Atomic Energy enterprises, the West is trying to impose on us its assistance in the construction of new storage facilities and the installation of its control system. And this means multimillion-dollar orders for the suppliers."

Specialists note, incidentally, that, while speaking of the "Russian origins" of the plutonium, the West has not once attempted to set up a joint commission. Such an approach can hardly contribute to ascertainment of the truth.

FCS Prepared To Share in Plutonium Investigation

LD1508174394 Moscow INTERFAX in English
1546 GMT 15 Aug 94

[Text] The Russian Counterintelligence Service [FCS] is prepared to share in investigating all reports of alleged drain of nuclear materials from Russia if Germany produces any substantial evidence, Vladimir Tomarovskiy, a spokesman for the Service told Interfax. He was commenting on reports that hundreds of grams of weapon-grade plutonium had been found on Lufthansa passengers who arrived in Munich from Moscow on August 10.

Tomarovskiy said that any information of this kind needs thorough checking and that Russia was prepared to take part in any expert evaluation. He added that no official data on this had been forthcoming from the BND, the German intelligence service.

Tomarovskiy did not rule out the possibility of theft at nuclear facilities. All nuclear countries have systems to supervise the storage and use of radioactive materials, notably of the weapon grade. He explained that his agency had no data of loss of any amount of weapon grade plutonium in that system.

Tomarovskiy recalled that when six grams of plutonium-239 had been found on a German businessman last May, the plutonium had been found to originate from Bulgaria, not Russia.

Tomarovskiy emphasized that the Russian authorities took the possibility of nuclear materials slipping through controls very seriously. This was the reason why the controls were tightened under a recent government ordinance, he said.

Tomarovskiy emphasized that the appropriate agencies were not complacent.

Experts close to Russian special services do not rule out that the noise made in the West about the nuclear drain from Russia might be aimed at undermining Russia's position in the world market and create an impression that Russia is now incapable of supervising its nuclear potential and so to demand imposing outside supervision on it.

The experts also say it is no coincidence that all reports of alleged drains originate in Germany where a black market of nuclear materials is thriving.

Chemical Defense Troops Exercise in Urals Military District

LD1508221494 Moscow Mayak Radio Network
in Russian 1830 GMT 15 Aug 94

[from the "Slavyanka" program of the Russian Defense Ministry]

[Text] Chemical defense troop subunits and special engineering units have held exercises in the Urals Military District. Actions to eliminate the consequences of an accident at nuclear and chemical industry facilities, of which there are quite a number in this region, were practiced during the exercises. Colonel Yevgeniy Lisyuk, chief of the radiation, chemical, and biological defense troops of the Urals Military District, told military journalists that the fighters coped successfully with the tasks they were set.

Official Deplores 'Nuclear Discrediting Campaign'

*LD1608162494 Moscow ITAR-TASS in English
1600 GMT 16 Aug 94*

[Article by ITAR-TASS correspondent Anatoliy Yurkin]

[Text] Moscow August 16 TASS— Radioactive materials revealed in Germany aim to "convince" the international public of Russian inability to ensure their reliable storage, Head of the Information Department of the Russian Ministry for Nuclear Power Engineering Georgiy Kaurov told ITAR-TASS today.

In his words, it is practically impossible to establish the production belonging of plutonium or uranium-235 (Japan, France, the United States, Russia, China or other states). The analysis should be done by highly-skilled professionals to have samples of productions that may be the source of the German "finds". However, even this analysis will not give 100 per cent results.

Germany has revealed plutonium and uranium-235 several times over the past two-three months. This time Bremen found plutonium "brought from the former Soviet Union". It is a strange regularity which makes one wonder why the materials have not been found by the United States or Finland, said Kaurov.

The materials are announced Russian automatically without any proofs at a time when Russian nuclear scientists offer samples and joint discussions, he added. There has been no official information, only sensational "finds" of correspondents.

Certain forces are trying to convince the international public that Russia cannot have nuclear materials without international control, and this is the aim of the "nuclear discrediting campaign", he said.

No Plutonium Leak from Strategic Rocket Forces

*LD1608155494 Moscow ITAR-TASS World Service
in Russian 1523 GMT 16 Aug 94*

[by ITAR-TASS correspondent Anatoliy Yurkin]

[Text] Moscow, 16 Aug—Any leak of nuclear material among Russia's strategic rocket forces [RSRF] is ruled out, an ITAR-TASS correspondent was told today by Lieutenant General Viktor Yesin, first deputy chief of the RSRF's main headquarters.

The very design of nuclear charges rules out, he stressed, with absolute certainty the possibility that any part of the radioactive material can be removed or separated from them. "Thus, any leak of plutonium or uranium at RSRF facilities is ruled out," Lieutenant General Viktor Yesin declared.

Karasin Denies Seized Plutonium Made in Russia

*LD1608154894 Moscow Radiostantsiya Ekho Moskvy
in Russian 1500 GMT 16 Aug 94*

[Text] Some days ago German special services seized an amount of illegal plutonium which, according to the German side, had been smuggled out of Russia. The head office of the information and press department of the Russian Foreign Ministry said today that a German delegation will soon arrive in Russia to hold consultations with the Russian side. The Russian Foreign Ministry has categorically rejected the possibility of radioactive elements being smuggled out of Russia. [begin Grigoriy Karasin recording]

Grigoriy Karasin: Our relevant ministries categorically deny the possibility of the above plutonium having been manufactured in Russia. I think that a thorough analysis and exchange of information with our foreign partners will make it possible to give clear and straightforward answers and to take immediate measures in order to halt this flow. [end recording]

Announcer: That was Grigoriy Karasin, director of the information and press department of the Russian Foreign Ministry. According to him, Russia is prepared for international cooperation in order to forestall similar incidents in the future.

Intelligence Service Urges 'Restraint' on Plutonium Issue

*LD1608104394 Moscow ITAR-TASS in English
1024 GMT 16 Aug 94*

[Article by ITAR-TASS correspondent Andrey Palaria]

[Text] Moscow August 16 TASS—The Russian Federal Foreign Intelligence Service, which has always been reserved in its responses to events, has now called for more restraint in discussing the alleged export of nuclear components from Russia ahead of the forthcoming visit to Moscow of German State Minister Bernd Schmidbauer. The minister in charge of coordinating the activity of German special services is due to arrive in Moscow soon to discuss the possibility of fission materials being smuggled out of Russia.

Commenting on press reports about the seizure in Munich of a small amount of "Russian-made" plutonium, a spokesman for the Russian Foreign Intelligence Service Yuriy Kobaladze told ITAR-TASS that the real origin of the weapons-grade plutonium has yet to be proven. All earlier accusations, according to Kobaladze,

proved unverifiable, and no one has been able to trace the materials, including weapons-grade plutonium, to a Russian source.

German special services are well aware of the existence of specific channels through which such problems can be solved, but somehow they have not made use of them.

As concerns the origin of the plutonium seized in Germany, experts say that it is not difficult to establish where it originated. Any fissionable material bears specific marking and the producer can be easily identified even without a chemical analysis.

'Indiscriminate Accusations' Over Plutonium Find Criticized

MM1608103594 Moscow *IZVESTIYA* in Russian
16 Aug 94 p 3

[Report by Vladimir Lapskiy: "Germans Are Convinced That Uranium and Plutonium Make Their Way to Them From Russia—Moscow's Departments Humbly Deny This"]

[Text] Chancellor Helmut Kohl has urged Moscow to halt the illegal export of radioactive materials from Russia. This was the chancellor's reaction to the arrest by police in the Bavarian city of Landshut near Munich of a group of nuclear smugglers in possession of a small quantity of uranium-235. The group comprised Czechs and Slovaks, as well as one local woman. The immediate conclusion was that the uranium is of Russian origin.

The incident whereby three officers from Russia's Northern Fleet stole 4.5 kg of uranium from the base to sell and were caught red-handed is still fresh in the mind in Germany. On another occasion, five kg of the very same material were taken from the Chelyabinsk Military Plant. These incidents ended favorably, foreign newspapers write, but there is no knowing just to what extent radioactive materials from Russia fall into the hands of terrorists and are purchased by certain "untrustworthy" countries.

As yet, no information about the origins of the contraband uranium confiscated in Germany has been forthcoming through Russian intelligence channels, Yuriy Kabaladze, leader of the Foreign Intelligence Service Press Bureau, told *IZVESTIYA*. But, to all appearances, this uranium has nothing to do with us, he said. The Western press loves to lay the blame on us, Yuriy Kabaladze added, as was the case recently with the six grams of plutonium discovered in the FRG, allegedly supplied from Russia. Analysis showed that it was not so-called weapons-grade plutonium, and it was most certainly not Russian. In practice, not a single one of the facts reported by Western newspapers about contraband making its way to Germany from Russian nuclear components was substantiated.

The Western press is painting a distorted picture of the state of affairs in Russia with regard to the storage of

nuclear materials—you would think that in our country such things were left lying around all over the place, Sergey Vasilyev, deputy leader of the Federal Counter-intelligence Service Press Center, said. It is essential to await the results of the analysis and not to be hasty with indiscriminate accusations against us. The illegal carriage of radioactive materials across the border is becoming an ever less practicable business, it is believed at the Russian Border Troops Press Center.

"There is a lot of mystery surrounding cases involving 'nuclear contraband,'" Vladislav Petrov, an official at the Ministry of Atomic Energy, says. "Why is it that it is only discovered in Germany and nowhere else, and why is it that, without going out of their way to look into things, the police and other competent bodies in the FRG are accusing Russia of tolerating a steady outflow of radioactive materials? Incidentally, a German television correspondent has just telephoned and reported that the FRG Ministry of Internal Affairs has declared that there would seem to be no proper control over radioactive materials in Russia. Yet you know, FBI Director Louis Freeh visited our country recently and familiarized himself at first hand with the way in which these materials are stored and controlled, and he made a corresponding statement. In our view, indiscriminate reproaches made against Russia are unfounded."

Official Doubts Alleged Theft of Radioactive Materials

LD1608135694 Moscow *ITAR-TASS* in English
1326 GMT 16 Aug 94

[By ITAR-TASS correspondent Tamara Zamyatina]

[Text] Moscow August 16 TASS—Vladimir Klimenko, head of the staff of the Russian presidential assistant for national security, said here today he doubts that German secret services could allow transportation of 500 grams of plutonium on board a German Lufthansa plane.

"If the contraband was really on board the aircraft, it would have been more appropriate for the German secret services to arrest the cargo in Moscow within the framework of Interpol agreements and not to endanger the lives of plane passengers," said the expert.

In his words, "the investigation bodies of the Russian Interior Ministry and counter-intelligence have not confirmed a single Western report on alleged stealing of war nuclear materials from Russia since the early 1992—the time the first report of the sort appeared".

Western secret services and mass media bodies are spreading these rumors to "use the public opinion for receiving an access to control over the production of nuclear materials in Russia," said Klimenko.

After meeting the FBI chief in July, Russian presidential assistant for national security Yuriy Baturin told ITAR-TASS that the threat of nuclear terrorism allegedly posed from Russia is "far-fetched".

Scientist on Security of Nuclear Material
94WP0144A Moscow ARGUMENTY I FAKTY
in Russian No 34, Aug 94 pp 1-2

[Interview with unidentified physicist by Andrey Uglanov and Andrey Neverov under the rubric "Scandal"; place and date not given: "Plutonium Tricks"]

[Text] *One could hardly imagine that a rather ordinary incident, which in the final count what the story with the plutonium confiscated from a German citizen—a passenger on the Moscow-Munich flight of the Lufthansa company—amounts to, would occupy the mind of all the highest officials in Europe and acquire a clearly political character. One gets the impression that the hoopla around this incident is playing very much into somebody's hands. But is it indeed possible to steal plutonium in Russia?*

Let us turn to an authoritative specialist-physicist. He chose not to make his name public.

Physicist: There are three sources of possible theft of radioactive materials. These are radio-chemical combines where plutonium—the stuffing of nuclear bombs—is produced from enriched uranium.

The second theoretical source is the troops, especially those where dismantling of nuclear missiles is taking place. There is plutonium there as well.

And the third source is research institutes. Work there is done predominantly with uranium salts and its low- and medium-enriched isotopes. You cannot make a bomb out of this.

ARGUMENTY I FAKTY: How much plutonium is enough to create a nuclear explosion?

Physicist: Under certain conditions, one kg is enough. Therefore, at enterprises where it is produced, it is permitted to have only one kg of plutonium per work site.

A work site at a radio-chemical combine is an enclosure, a closed chamber sealed by the security department, which ensures the safekeeping of the output.

ARGUMENTY I FAKTY: Is it possible to carry plutonium out of an enterprise?

Physicist: You come to a sanitary check unit and undress completely. Take a shower, then put on new underwear and go into the production area. On your way you pass several military posts with sensors. If you did not wash well after working in the production area and, for instance, something got stuck to your fingers, you will be "flagged." So, at civilian facilities where plutonium is produced, it is impossible to steal it from their territory even in theory.

One can hide from human eye several grams of plutonium—in the anus, for instance—but the sensors will have no problem registering it. And then, who would want to expose his anus to radiation?

I cannot tell anything about military facilities in Ukraine and Belarus [Belarus], where missiles with nuclear warheads are being dismantled. But it unlikely that the officers will be stupid enough to saw off pieces of a warhead. That is suicide.

ARGUMENTY I FAKTY: What is one kg of plutonium at a combine?

Physicist: Approximately a two-liter can of porous or granulated metal.

ARGUMENTY I FAKTY: Still, where can one steal radioactive material here in Russia?

Physicist: Theoretically—in a research institute. In Moscow, for instance, it is the Kurchatov Institute and the "ninth"—also a Moscow research institute. In the "ninth" you will not be able to scrape up the classic four kg of plutonium in the entire institute. In the Kurchatov Institute it is quite possible. They have their own reactor. A year ago many outrageous things occurred there. They kept so many containers with uranium-235 in safes that the entire place could have blown up at any time. They even kept uranium-235 enriched to 36 percent there. But over the past year and a half, the secrecy and security requirements were seriously beefed up there. Today it is impossible to steal anything. The situation improved when the GAN—Russian Federal Oversight of Nuclear and Radiation Safety—came into existence. It prompted some progress with respect to the physics of storage of nuclear materials.

ARGUMENTY I FAKTY: Why was it dangerous to keep uranium in safes?

Physicist: It was the way it was done. For instance, two kg of enriched uranium were kept in a small barrel. Another such barrel should not be placed closer than a distance of 200 mm. But they stood next to one another. If, God forbid, a fire started....

ARGUMENTY I FAKTY: The Kurchatov Institute could have blown up?

Physicist: Any institute.

ARGUMENTY I FAKTY: And how many are there?

Physicist: In Moscow alone five to seven.

ARGUMENTY I FAKTY: That is, it was possible to steal from a research institute the enriched uranium powder?

Physicist: As much as you wanted.

ARGUMENTY I FAKTY: Can a terrorist make a bomb out of the powder?

Physicist: No. This is very difficult. You have to have a nuclear reactor and accelerator. But a terrorist could contaminate a large territory with this powder. You do

not have to explode anything. For instance, it would take about 10 years to decontaminate the Trade Center building in New York.

ARGUMENTY I FAKTY: Villains with radioactive powder were intercepted in Germany. Is it possible to determine its origin?

Physicist: Naturally. The base material always differs. For instance, we received the dioxide of uranium-238 from Ust-Kamenogorsk and Elektrostal raw material. Well, with one and the same technology, the difference in the base material was obvious.

So the methodology for determining where the material came from is simple.

ARGUMENTY I FAKTY: Are there many laboratories working with radioactive materials?

Physicist: A research institute has dozens of laboratories. In a lab there are several groups. And all work with uranium. But it unlikely that someone would want today ruin his her'th and carry out this, generally speaking, muck. You are assured a radiation dose, as well as a prison term.

Two weeks before the incident, the German press reported on several instances of theft of plutonium from Russian enterprises, about which our Federal Counterintelligence Service [FCS] or the Ministry of Atomic Energy knew nothing; then "suddenly" the contraband plutonium "surfaces" in Germany, of all places. What is happening?

There is a theory that most cases involving contraband of radioactive materials are conducted by German special services through "sting" operations—with the help of decoy sellers or buyers. On one hand, their zeal is quite understandable—Germany is frightened by the specter of the Chernobyl cloud and the growing international terrorism. But on the other hand, a quite logical question arises—why could not both the buyer and the seller happen to be decoys at the same time?

It looks as if someone wanted very much for the intercepted plutonium to be of Russian origin. In this case Russia could be automatically declared unable to control its nuclear stockpile and technologies and thus forced to accept outside control—up to the point that the Arzamas-16 checkpoint would be manned by Sergeant John or Noncommissioned Officer Dietrich. Then we would have to forget about advanced technologies and state secrets in this area, since they would immediately become the property of competitor countries.

And in this case the resolve of our special services and diplomats to stop at their inception attempts to impose such controls on us is very laudable.

Especially considering that, as the research done in the Los Alamos nuclear laboratory (United States) shows,

the intercepted nuclear material represents the well-known "MOX" compound, which is used in nuclear reactors in Belgium, Germany, France, and Japan, but certainly not in Russia. Moreover, according to American experts, Russia has not yet developed the technology to utilize this compound.

One can understand Western countries' concerns. After all, terrorism is flourishing; 100-story high trade centers blow up, and on top of that there are constant reminders of the "Russian mafia" in combination with the "Russian mess." To complete the picture, all one needs is a nuclear threat.... It is true that cooperation between special services of different countries is needed. And, as the FCS head, S. Stepashin, has said, Russia is ready for such cooperation. Except please do not present us as savages with the nuclear button....

Spokesman Says No Plutonium Missing From Russian Firms

LD1708100394 Moscow ITAR-TASS World Service in Russian 0835 GMT 17 Aug 94

[Article by ITAR-TASS diplomatic correspondent]

[Text] Moscow, 17 Aug— "The Russian Ministry of Atomic Energy has not received for analysis any sample of the radioactive substance seized in Germany or even a certificate relating to a sample of this substance," Vitaliy Nasonov, a high-ranking spokesman for the Russian Atomic Energy Ministry, told ITAR-TASS today.

Commenting on an article in today's NEW YORK TIMES, which quoted U.S. experts as saying that the composition and purity of the plutonium seized in Germany did not match materials from Russian military stocks, Nasonov noted that if an analysis of this kind were to be carried out, it might indeed shed light on where the radioactive material came from. Evidently, he said, such work is being actively pursued in laboratories at Los Alamos and, as THE NEW YORK TIMES writes, "throughout the world". However, I repeat: the Ministry of Atomic Energy has not officially received any information from Germany about the composition of the smuggled substance, the Russian spokesman declared.

Our position remains unchanged: no weapons-grade plutonium has been lost from Russian military enterprises, Nasonov stated. He said the relevant commissions were continuing their work to tighten controls on radioactive substances.

Counterintelligence Official: No Plutonium Stolen

LD1708142994 Moscow ITAR-TASS in English 1257 GMT 17 Aug 94

[Article by ITAR-TASS diplomatic correspondent]

[Text] Moscow 17 Aug (TASS)—The Federal Counter-Intelligence Service, responsible for the safety of Russian radioactive stockpiles, has not discovered the theft of a

single gram of plutonium from them, ITAR-TASS was told today by Sergey Vasilyev, chief of the press service of the Russian Federal Counter-Intelligence Service, who commented on the reported seizure of radioactive substances in Germany.

"In spite of the veritable campaign launched by the Western mass media in connection with the alleged leak of radioactive materials from Russian military installations, there has been not a single official address to Russian bodies responsible for security matters," he stated.

Vasilyev described as preposterous the Western claims that some representatives of the Russian law enforcement bodies and security services were involved in this case. In his opinion, reports that representatives of the German special services had allegedly carried out this operation on Russian territory were equally untrustworthy.

"The only more or less correct report on this subject is that the radioactive 'cargo' was really flown from the Moscow 'Sheremetyevo-2' airport," Vasilyev stated. "It is not ruled out that Moscow could have been merely a transit point on its route. Moreover, the five persons arrested in Munich for smuggling in a radioactive substance are not Russian citizens," he added.

"We are ready to open any contacts with German law enforcement bodies to investigate the case, but I stress once again that we have so far received no address in this connection through official channels," Vasilyev stated.

Vasilyev Refutes 'Absurd' Plutonium Smuggling Claims

*LD1708180094 Moscow ITAR-TASS in English
1444 GMT 17 Aug 94*

[Text] Bonn August 17 TASS—A German parliamentarian said on Wednesday there is no doubt that the majority of the smuggled plutonium comes from Russia.

Executive secretary of the opposition Social Democratic Party of Germany (SDPG) Peter Struck told German television that if Russian authorities disagree, that means that they have apparently lost control over the nuclear material and personnel.

He said that the problem of international nuclear smuggling has turned out to be much more complicated than was expected. Struck did not rule out the possibility that the organisers of illegal trade in radioactive materials could be former employees of the Soviet and East German secret services. After all, big money is involved, he added.

Struck believes that the German Government should take urgent measures against illegal trafficking in nuclear material, including by strengthening cooperation with American and European intelligence services. He also called on the European Union to step up assistance to Russia.

At the same time, Russian Counterintelligence Service (FSK) spokesman Sergey Vasilyev told ITAR-TASS that not a single gram of plutonium has been missing from the facilities controlled and guarded by the FSK.

Despite all that fuss in the foreign mass media about an alleged leak of radioactive materials from Russian military facilities, the Russian structures responsible for the safety of nuclear materials and facilities have not received a single inquiry on this matter, he added.

Vasilyev described as absurd allegations that representatives of the Russian law enforcement and security bodies are involved in this affair. He also brushed off statements that the operation to smuggle plutonium out of Russia was carried out by the German intelligence.

However, he admitted that the radioactive "cargo" had passed through Moscow's Sheremetyevo-2 international airport. At the same time, he pointed out that Moscow could be only a transit point. All the more so, because the five people who were detained in Munich are not Russian citizens, he said.

"We are ready for contacts with German law-enforcement bodies on this matter. However, I would like to stress once again that we have not received a single inquiry through official channels," he said.

Ministry Tells AFP of Arrests of Nuclear Smugglers

*AU1808164394 Paris AFP in English 1623 GMT
18 Aug 94*

[Text] Moscow, Aug 18 (AFP)—Three people have been arrested in Russia while attempting to sell an unknown quantity of nuclear material to undercover police, the Russian interior ministry said Thursday [18 August].

The three men were arrested in the western city of Kaliningrad when they tried to sell a 60-kilogramme (132-pound) lead container containing a nuclear substance for one million dollars, Saint Petersburg police said.

Police had earlier said a suspected buyer was arrested in Saint Petersburg, but officials later said the people posing as buyers were undercover agents.

The interior ministry told AFP the arrests were made Wednesday, but according to Saint Petersburg police the incident took place August 12.

Officials would not specify the nuclear substance or its quantity, but the interior ministry said the container was labelled SRP88N in Cyrillic lettering. The material was handed over to the special services of Russia's Baltic Fleet, Saint Petersburg police said.

One of the suspects was in his early 20s and was the director of a firm called Baltares, the second was a Baltares security guard and the third an unemployed man, the interior ministry said.

Several dozen cartridges, two knives and two radios were also seized in the raid, which was carried out by both Kaliningrad and Saint Petersburg regional forces, officials said.

Meanwhile, a spokesman for Russia's counter-espionage service said the Russian ministry of atomic energy had still not received any documents from Germany enabling it to trace the origin of the 300 to 350 grammes of plutonium-239 seized August 10 in Munich from a Colombian and two Spaniards arriving on a plane from Moscow.

The spokesman, Alexander Mikhailov, said the ministry was relying on press reports for its information.

He said the German authorities' attitude might endanger the likelihood of a joint Russian-German investigation being carried out.

Russian authorities have been irritated over the past three days by German declarations that the plutonium seized in Germany came from Russia.

However, the director of the European Atomic Energy Community said Thursday that six grammes of plutonium seized in May by German police came from a Russian nuclear complex.

Smuggling of Radioactive Substances Said 'Impossible'

*LD1808151994 Moscow INTERFAX in English
1053 GMT 18 Aug 94*

[Text] The Moscow Sheremetyevo-2 international airport has "very sensitive radio equipment" which makes it absolutely impossible to export radioactive substances from Russia, a well-informed source in the Russian State Customs Committee said in an interview with INTERFAX today.

The source said that in accordance with the USSR law on the state borders, still in effect today, specially equipped border troops must examine cargo crossing the border and reveal such substances. The special equipment registers even very insignificant amounts of cesium found in pacemakers. This equipment was developed by KGB professionals under the Soviet regime, a 100% guarantee for its reliability, the source said.

"The equipment in the Sheremetyevo airport was functioning," the day the contraband cargo of radioactive substances left Moscow for Munich, the source stressed.

The source said he believes that the smugglers who had come to Moscow from Munich had changed luggage labels and had left for Munich on the same day. The source said he believes that the smugglers wanted to "trap Russia."

Criminal Gang Detained Trying to Sell Radioactive Material

*LD1808134494 Moscow INTERFAX in English
1053 GMT 18 Aug 94*

[Text] An organized crime group has been detained in St. Petersburg for trying to sell a 60 kg metal container with radioactive material to a local resident.

The press-center of the St. Petersburg Police Force has said that agents of the fourth organized crime department for the Leningrad region together with the organized crime department of Kaliningrad have detained three residents of Kaliningrad—one is unemployed, the others are an employee of a private security firm and the leader of the Baltares company.

Investigators are trying to establish where the container was acquired and under what circumstances. Several dozen 9-mm cartridges, two knives and two portable radios were confiscated from the three men.

The container with radioactive substance has been handed over to the special service of the Baltic Fleet.

Talks with German Envoy on Nuclear Smuggling 'Useful'

*LD2208124394 Moscow ITAR-TASS in English
1219 GMT 22 Aug 94*

[Article by ITAR-TASS correspondent Olga Semenova]

[Text] Moscow August 22 TASS—Russian Federal Counter-intelligence Service (FSK) head Sergey Stepashin's talks with German special envoy Bernd Schmidbauer did not succeed in clearing up the origin of the plutonium 239 found in Germany, but were nevertheless very useful.

"There is no universally-accepted opinion on the origin of the plutonium which was discovered in the Munich airport", Stepashin told ITAR-TASS on Monday. However, the question of the plutonium's origin was "not the most important topic of our conversation", according to Schmidbauer, representative of the German Chancellor.

The most important, he explained, were the talks on the problem of smuggling nuclear materials. In the struggle against that, the two sides have established bilateral cooperation which will hopefully become multi-lateral, the German emissary stated.

ITAR-TASS has learned that the result of the German delegation's three-day visit to Moscow was the signing of a memorandum. The contents of the memorandum will be made public after it is reviewed by the German and Russian leaders.

The Russian-German talks were held in a friendly, open atmosphere, which was sharply different from the accusative tone adopted by the Western press, the participants stressed.

Nuclear Expert Describes Security Measures as 'Outdated'

AU2208131694 Hamburg DER SPIEGEL in German
22 Aug 94 p 28

[Interview with Anatoliy Dyakov, professor at the Moscow Institute for Technical Physics, by unidentified correspondent; place and date not given: "Time To Wake Up"]

[Text]

DER SPIEGEL: Anatoliy Stepanovich, how secure is the Russian nuclear sector against thefts of nuclear materials, especially weapons-grade plutonium?

Dyakov: Our safety system concerning fissionable material is outdated. It ceased to suit present requirements a long time ago.

DER SPIEGEL: What has changed?

Dyakov: Life itself. Before, there was order and discipline. Operations involving weapons-grade plutonium and uranium could only be conducted by three people at the same time, or sometimes just five. Each person monitored the others. Theft and smuggling were out of the question. But this strict regime has gone. Order and regulations have lost their significance. Everything has been devalued.

DER SPIEGEL: And is that the cause of the crooked deals with these deadly substances?

Dyakov: In Russia, not much was ever said or written about the value of this radioactive material. It is the West that has made it attractive, and in our present economic condition as well.

DER SPIEGEL: Do you know of any cases of plutonium theft?

Dyakov: No. All I am saying is that the probability of plutonium theft has increased in Russia. Consider the Moscow Institute for Inorganic Materials and the lack of funds to carry out even routine work. But work is nevertheless going on there, even on plutonium. Principled people with a long work record at the institute are now leaving it. They have to live. Their places are being taken by people devoid of principles, who realize that they are practically rolling in money.

DER SPIEGEL: Where is the greatest danger, in the civilian sector or the military sector?

Dyakov: My experience tells me that there is somewhat greater control in the military sector. The weakest link in our chain of security is at the research institutes, which join both sectors together. These institutes deal with small quantities of plutonium.

DER SPIEGEL: You consider the production of plutonium relatively safe, even though the employees are poorly paid?

Dyakov: There is no doubt that this social malady is a major factor of insecurity. Added to this is the outdated practice of our plants to establish a nest-egg for better times, in order to be able to fulfill production quotas.

DER SPIEGEL: A plutonium nest-egg?

Dyakov: Remember that the plutonium produced in an industrial reactor is always an approximate quantity, never an exact one. Some plutonium is always dissipated. Whenever there was a plutonium surplus, the plants hoarded it. Everyone who works in the nuclear sector knows how this works.

DER SPIEGEL: The Russian authorities are trying to create the impression that they have every single gram of plutonium under control.

Dyakov: That is understandable. They are defending a system of control that used to function reliably. But it would be better for them to admit that this system can no longer guarantee adequate security today. For example, KGB units that used to guard these facilities and were paid out of the state treasury are now paid out of the funds of the facilities themselves. This has led to a situation where, at the Energy Institute of Obninsk, the security personnel has had to be reduced. In addition, our nuclear facilities hardly have any technical inspection systems at their disposal.

DER SPIEGEL: The authorities want to stop plutonium production altogether.

Dyakov: Russia is committed to shutting down these reactors by the year 2000. The relevant agreement has been signed with the United States. We do not need any plutonium for weapons any more. First, there are large reserves. Second, we obtain an additional seven tonnes of plutonium every year from the dismantling of 2,000 warheads, each of which contains 3.5 kg of plutonium. It is time to wake up. Twenty years ago we believed that plutonium was the future—the more plutonium, the richer the country.

DER SPIEGEL: Official circles in Moscow view the disturbing nuclear finds in Germany as part of a Western-engineered campaign against Russia's nuclear sector. Is that a mere decoy maneuver?

Dyakov: I am unable to judge such opinions. But it is indeed remarkable that right now, a U.S. delegation is discussing inspection and safety measures concerning fissionable material with our ministers of nuclear energy, defense, and foreign affairs, while at the same time a scandal about 300 grams of plutonium, allegedly from Russia, is being inflated.

DER SPIEGEL: Are you opposed to an international system of inspections over the Russian nuclear sector?

Dyakov: On the contrary, I have been in favor of an international plutonium depot under international supervision for a long time. The idea is not new. But

because Russia and the United States share parity in this sphere, controls over us cannot be stricter than controls over the Americans.

Security System 'Precludes' Significant Nuclear Theft

LD2208154194 Moscow *INTERFAX* in English
1320 GMT 22 Aug 94

[Text] The security system at Russian nuclear facilities, worked out in the mid-1970s, precludes the theft of any significant amount of nuclear materials, a well-informed officer at the Krasnoyarsk-26 nuclear enterprise told Interfax.

"We carried out several examinations after the reports on the seizure of "Russian uranium" by the German authorities and found out that the situation with such nuclear materials as uranium-239 or plutonium-239 is completely controlled at the enterprise," the source said. He said that he had consulted his colleagues from other nuclear centers to confirm the information that there have not been any thefts of nuclear materials registered.

The source said that there had been four attempts to steal nuclear materials and equipment from the Krasnoyarsk-26 nuclear center since the beginning of the 1980s. "Three of the culprits were caught immediately during inspection procedures and the last one was caught within a very short period of time," he added. He stressed that all of the cases the nuclear materials had not been removed from the industrial zone.

The Krasnoyarsk-26 and Arzamas-16 closed enterprises produce highly enriched uranium and plutonium in Russia. According to official sources, the Chelyabinsk-40 nuclear enterprise was closed. Its reactor was switched off and there are no nuclear materials remaining on its territory.

Discussions with German Envoy on Origin of Seized Plutonium

LD2208153994 Moscow *ITAR-TASS* in English
1437 GMT 22 Aug 94

[Article by ITAR-TASS correspondent Olga Semenova]

[Text] Moscow, August 22 TASS—During the talks held in Moscow between the plenipotentiary representative of the German Government and State Minister of the Federal Chancellor's Department, Bernard Schmidbauer, and Director of the Russian Federal Counterintelligence Service, Sergey Stepashin authorised by President Boris Yeltsin to represent Russia, the sides discussed the origin of radioactive plutonium-239 fit for the production of nuclear weapons, which had been confiscated in Munich. "This kind of plutonium has never been used in Russian nuclear weapons," said Chief of the Head Scientific Technological Nuclear and Chemical Department of the Russian Atomic Ministry,

Yevgeniy Mekerin. He expressed the opinion of scientists who attended the talks.

However, in an interview with ITAR-TASS state officials were less categoric in their statements. Stepashin said that materials submitted by the German side were being studied. Schmidbauer was rather reserved as well, saying that his mission went far beyond finding out to whom the confiscated plutonium belonged. The main task was to negotiate long-term cooperation between German and Russian secret services in fighting against illegal transfer of nuclear materials.

Guarded Welcome for U.S. Plutonium Stance

94W01404 Moscow *ROSSIYSKAYA GAZETA*
in Russian 23 Aug 94 p 3

[Report by Ilya Baranikas under the rubric "A Side Perspective": "Plutonium and Fears"]

[Text] New York—There is an unabating anxious debate in America in connection with the Russian radioactive material that has on four occasions now been confiscated from smugglers by the FGR authorities. The Americans' anxiety is increased by reports from Russia of the detention of people dealing in radioactive commodities—the news that three Russian citizens had been attempting in St. Petersburg to sell 60 kg (?) of "unnamed radioactive substances" sounded particularly impressive.

Not only leading U.S. newspapers of THE NEW YORK TIMES and THE WASHINGTON POST type but even, as we would put it, the "locals" are devoting a vast amount of material to this topic. Thus, THE RECORD, which is published in a county of the state of New Jersey, wrote recently that "the information (on the origin of the nuclear smuggling—I.B.) that is appearing has shaken the confidence of many specialists in the proliferation of nuclear weapons that, despite the possibility of anarchy and theft at civilian nuclear facilities of Russia, military nuclear installations were under firm control."

ABC Television recently ran a feature from Moscow in which some Russian citizen assured the American correspondent that everything, nuclear weapons included, could be bought for money in Russia. The Americans' excited imagination is painting pictures, each one more horrifying than the last: nuclear warheads in the hands of the Libyan dictator Qadhafi; Iranian mullahs wiping Israel from the face of the earth with a single nuclear missile round; accomplices of the arrested superterrorist, Illich Ramirez Sanchez, blackmailing America, threatening to turn Washington into the Hiroshima of 1945.... Any minute now some ephemeral bestseller on the burning topic, which will be screened immediately, will appear on the bookshelves—in America any incoming commercial signal is immediately followed by an outgoing commercial product.

It cannot be said that the American fears are absolutely unfounded. As the influential CHRISTIAN SCIENCE MONITOR observed in an editorial article, discipline in

the former Soviet Army has been hobbled, the army needs money, the influence of the mafia in Russia is spreading, and the situation in the former Soviet republics is chaotic. It may easily be surmised that repressive regimes of the Near East, rich in petrodollars, and the terrorists that they sponsor are in a position to buy a Russian Army officer or a nuclear scientist with access to nuclear arsenals. Last year, even the Clinton administration prepared for the United Nations an analysis of the situation in the world as regards the proliferation of nuclear weapons; this report concluded that nuclear terrorism today is the most important threat to international security.

Nonetheless, Washington officialdom is inclined to a lesser extent than the sensation-seeking mass media and the easily frightened average individual to dramatize the situation. Lynn Davis, assistant U.S. secretary of state for arms control and international security, declared in a television interview: "It is hard for us as yet to establish with accuracy the origin" of the nuclear materials that have been confiscated recently in the attempts to bring contraband into the FRG, "but since there are fears that they could have come from Russia, I believe that we will raise this matter with the Russians and attempt in cooperation with them to determine the source of the problem and the steps that have to be taken to prevent such incidents." The assistant secretary of state announced that the administration would cooperate with Russia in the sphere of nuclear technology in several areas simultaneously: specifically, a contract on the reprocessing of highly enriched uranium into fuel for nuclear power stations had been prepared.

American specialists are analyzing the possible sources and paths of the leak of Russian radioactive materials to the West. One working hypothesis cites as possible "leaking" nuclear facilities the Mayak, which also goes by the names of Chelyabinsk-65 and the Kyshtym complex, the Institute of Inorganic Materials in Moscow, which conducts experiments with plutonium, and the Nuclear Reactors Institute located in Dimitrovgrad. But those that determine U.S. policy see the essence of the problem as lying elsewhere. According to U.S. Energy Secretary Hazel O'Leary, it is far less important to determine the origin of the confiscated nuclear materials than to enhance the overall level of safety of Russian nuclear power engineering and nuclear research. "I respect the capacity of the Russians to independently

make the right decisions," the secretary said. "Instead of inciting alarm, we should be studying the causes of the current problems."

We cannot rule out the fact that certain Russian officials may be right when they maintain that the West is inflating the "nuclear furor" in its own interests (Yevgeniy Mikerin, senior official at the Ministry of Atomic Energy of the Russian Federation, for example, declared that the West was specially creating a picture of the absence in Russia of due control over nuclear installations in order to obtain profitable orders from Russia). THE NEW YORK TIMES points out that the approximate cost of "pulling" Russian nuclear industry up to Western safety standards constitutes from \$26 billion to \$120 billion. Although Moscow itself does not have spare cash of this magnitude, it could expect the assistance of Western financial institutions and the governments of the leading industrial powers (assistance that they would be rendering not least in their own interests). It is thus a question of superlarge potential riches for the private corporations operating in this field. THE NEW YORK TIMES writes that General Atomics, the flagship of America's nuclear industry, has for a number of years been attempting to persuade Russians to begin to introduce the ceramic-encapsulated and helium-cooled uranium or plutonium reactors that are manufactured by this company.

...It is a rare American that has any idea where Chelyabinsk, the Ural Mountains, or even Moscow are located—this nation has many virtues, but geographical erudition is not one of them. But any inhabitant of the United States has, thanks to television, a very good idea of the consequences of a recurrence of the nuclear tragedy of Hiroshima, Nagasaki, or Chernobyl. The figures cited in the American press—30,000 nuclear warheads on the territory of the former Soviet Union and 60 operating nuclear reactors of Soviet design—are instilling in people the soul-chilling certainty that, should "something happen," it would not be possible to coolly sit it out even across the ocean.

Americans feel for Russia with its transitional-age ailments and want to help it. Even if there is in this kindly attitude a fair share of selfishness, you cannot demand of a sympathizer that charity begins other than at home. You can and should demand respect for yourself—and Washington is, by and large, displaying it in relation to Moscow—and remember that charity begins at home.

REGIONAL AFFAIRS

IAEA Official Comments on Plutonium Finds in Germany

AU1608133094 Vienna Oesterreich Eins Radio Network in German 1000 GMT 16 Aug 94

[Interview with IAEA Information Director David Kitt by Monika Czernin; place and date not given—recorded]

[Excerpt] In an interview with Monika Czernin, David Kitt, the IAEA [International Atomic Energy Agency] information director, expressed concern about the discovery of weapons-grade plutonium in Germany.

Kitt: Certainly, not only have the quantities been growing, the quality of these substances has also been improving, because until now there has not, of course, been any weapons-grade material available on the black market, although the quantities are completely inadequate to produce a weapon—for that, one would need eight kg of plutonium or 25 kg of highly-enriched uranium.

Czernin: Do you think it is possible that several kilograms of plutonium are circulating in Germany?

Kitt: No, I actually do not think so, because it seems improbable in the sense that in order to transport those sorts of amounts, one would need a container, and that would be much easier to find than, for example, a suitcase in a plane as was the case in Munich. However, one cannot rule that out, and the German police also do not rule that out.

Czernin: So, you are saying that it is not enough to produce a bomb, but it is still alarming. So, why is it alarming?

Kitt: It is so for two reasons. First, if small quantities are available, who can say that smugglers will not be able to get hold of larger amounts in the future? Second, plutonium is toxic, and even a small quantity can be harmful to people. For example, if one inhales plutonium, then lung cancer develops almost automatically. [passage omitted]

BELGIUM

Possible Nuclear Material Smuggling Assessed

BR1708135994 Antwerp GAZET VAN ANTWERPEN in Dutch 17 Aug 94 p 1

[Unattributed article: "Nuclear Smuggling Already Tried in Belgium—Theft of Belgian Nuclear Material Simply Impossible"]

[Text] At the Foreign Ministry and among Belgian electricity producers, they are well aware that the chaotic situation in the former Soviet Union poses a nuclear

threat to the West. Not only Germany, but Belgium too has already been faced with attempts by East Europeans to sell radioactive material.

Yesterday [16 August] we received confirmation that earlier this year the State Security Department intercepted a number of attempts by Czech nationals, probably involving pure fraud. But this does indicate that the police forces have already developed information systems to monitor any attempts to smuggle nuclear material.

While throughout the West, virtually all security services went on "red alert" because of a few hundred grams of nuclear material, in Belgium hundreds of kilograms of uranium and (not pure) plutonium are permanently in use or ready for use. "No problem," the electricity producers claim, "our security systems are genuinely watertight."

And yet there is a problem. This has not just been illustrated by the German experience, it is also being said at the Foreign Ministry and in the electricity sector. The danger comes from the former Eastern bloc.

The Interior Ministry is keeping very quiet about any policy against nuclear smuggling. "We are very conscious of the problem," says state police chief Michiels at the Interior Ministry. "It is also quite clearly not so much a question of the theft of nuclear material from us but of the import of such material from Russia. That is being watched. You will understand that I do not want to give any further information."

From other sources, we were able to learn yesterday that earlier this year, the State Security Department uncovered several attempts at fraud involving low radioactive waste. It is said that these attempts involved Czechs who failed to show up for the actual transaction. There is every indication that the State Security Department has already developed information channels to keep a close watch on this sector.

Electrabel [Belgian electricity producers] spokesman Patrick De Vos also believes that there is most definitely a very serious problem in Eastern Europe and an urgent need to get to grips with the problem "at its source." "If anybody is running around with this material here, there is indeed a problem. I believe it involves military nuclear material and not, for example, radioactive waste from Russian nuclear power stations. There is simply no shortage of nuclear material for nuclear power stations. On the other hand, due to the dismantling of nuclear material by the major powers, there is a dangerous potential. But that can only interest terrorist groups or countries seeking to develop an atom bomb."

Watertight

De Vos believes that there is no possibility of the nuclear material at Belgian power stations falling into the hands of smugglers of any kind. "Our nuclear cycle is more than watertight. The whole security philosophy is

designed to ensure that nothing can get out; the possibility of accidents is taken into account in all constructions. The containers used to transport nuclear material are, for example, tested for collisions at 160 kilometers per hour and a drop from a height of eight meters."

"From production through to transport, the security measures are strictly monitored. Take the packing for example: This is in fuel rods which can easily weigh several tons. Furthermore, you cannot enter or leave a power station unobserved with nuclear material. One man who was spotted with a simple contrast fluid was already detected when he entered the compound. When you leave, there are even more checks and the weight of the visitors is closely checked."

GERMANY

Investigator Says 120 Kg Plutonium On Way From Russia

AU1608104194 Munich ARD Television Network in German 2030 GMT 15 Aug 94

[Report by Christoph Arnowski]

[Excerpt] [passage omitted] In view of the steep increase in nuclear-related crime in Germany, Beckstein [Bavarian interior minister] called for stricter controls in the countries of origin, but also more powers for the police and undercover investigators. The Federal German Intelligence Service and the Federal Office for the Protection of the Constitution must be brought into combating this new form of organized crime. This assessment was indirectly confirmed in the evening by an undercover investigator in an interview with Northern German Radio: [begin recording]

There is information about 120 kilograms [as heard] of plutonium being on its way from Russia. Partial amounts of that appear to have been identified now. Just last Friday [12 August], a plutonium deal was carried out in northern Germany where a sample was to be handed over. In contrast to what happened in Bavaria, the public prosecutor in Northern Germany decided that no further business should be conducted and that there should already be an intervention in the case of the sample. The result is that a further 68 grams of plutonium are drifting around northern Germany. [end recording]

Russian Embassy Denies Plutonium Originates from Russia

LD1608134794 Berlin DDP/ADN in German 1241 GMT 16 Aug 94

[Text] Saarbruecken (DDP/ADN)—The Russian Embassy in Bonn has described the discussion in Germany about the smuggling of plutonium as a "clear case of pre-judgement." Vladislav Kurnikov, chargé d'affaires at the embassy, complained on Saarlaendischer Rundfunk of the lack of "concrete proof" that the plutonium originated from Russia. The Russian authorities are not

aware of any case where nuclear scientists from the country are "somehow involved in the smuggling of fissionable material." No losses of material of this kind have been reported either. However, the Russian side is taking the subject "very seriously."

Physicist Says 0.05 Milligrams of Plutonium Found in Bremen

AU1708094594 Munich ARD Television Network in German 2030 GMT 16 Aug 94

[Report by Andreas Neumann, Dirk Blumenthal]

[Excerpt] Little was left that was spectacular about what initially appeared to be the fourth spectacular discovery of plutonium within a short period of time. What was presented at a news conference staged by the Bremen Public Prosecutor's Office today was a capsule made of metal and ceramic material. The content was weapons-grade plutonium, but it was much less than what had been asserted by a supposed police liaison man yesterday. [begin physicist Gerald Kirchner recording]

Gerald Kirchner: It is not two grams of plutonium; that is something that we can clearly rule out on the basis of our analyses. The quantity of plutonium contained in this ceramic capsule is significantly less. The activity that we can measure indicates that the quantity is about 0.05 milligrams. [end recording] [passage omitted]

Russian Expert Says Plutonium Seizures 'Tip of Iceberg'

LD1708083194 Berlin DDP/ADN in German 0320 GMT 17 Aug 94

[Excerpt] Hamburg (DDP/ADN)—The latest cases of plutonium smuggling from Russia to Germany are, in the view of Vladimir Chernosenko, the former director of the clean-up at Chernobyl, only the tip of the iceberg. There is already more weapons-grade nuclear material in Germany than the authorities can imagine, the nuclear physicist, who now lives in Germany, told the Hamburg newspaper DIE WOCHE.

Up to now the smuggling has been carried out by the nuclear mafia. "But if the economic situation in Russia does not improve very soon, which I don't think will happen, then in the future there will be exports of nuclear material carried out by people at the highest rank," said Chernosenko, who is fighting for a worldwide abandonment of nuclear energy. Potential buyers were armies, energy companies, and terrorists.

The nuclear expert thinks the efforts by the FBI and the German Federal Intelligence Service to curb nuclear smuggling have no chance of success. "In Russia this sector of industry was traditionally controlled by the KGB. Now that these structures have collapsed, there are no controls any more. A foreign institution especially is in no position to gain the overview" which Russia has lost. [passage omitted]

CID Chief on Increase in Plutonium Smuggling

*LD1708225694 Berlin N-TV in German 1815 GMT
17 Aug 94*

[Interview with Hans-Ludwig Zachert, president of German CID; place and date not given—recorded]

[Text]

Zachert: In terms of the number of smuggling cases, a considerable increase can be seen. In 1990 we had four cases with this background; in 1991 there were 41, in 1992 there were 158, in 1993 there were as many as 241, but, and I must stress this, these were mostly cases of deception, where someone pretended to have radioactive material that could be procured.

But in 1992, 18 of the 158 cases nonetheless remained which involved material with at least a slight degree of radioactivity. And in one case a courier was so seriously hurt by this material, resulting in a considerable injury—it can be seen, then, that this material is very dangerous, and it's a police principle that we always have to proceed from a worst case scenario, because the potential risk, not least to the public, is extremely high [sentence as heard].

And we must therefore pay very particular attention to this phenomenon, and it cannot be ruled out, at least—and that was touched upon today—that the secure whereabouts of fissile material in the destabilized circumstances which exist in the central and east European states—it cannot be ruled out that such material could get into people's hands, criminal people, of course.

Control Commission's Struck on Nuclear Smuggling

*LD1708221094 Berlin N-TV in German 1815 GMT
17 Aug 94*

[Text] [Announcer Peter Staisch] The Parliamentary Control Commission met in Bonn today. The commission is based on the law on the parliamentary control of government intelligence activity. It was set up after bugging was used against the nuclear expert Klaus Traube—a controversial operation that took place on 9 March 1978. Intelligence activity—a good pointer toward what is happening in nuclear smuggling at the moment. The outcome, whether new or old, of today's meeting is that the fissile material does come from the Soviet Union. No new findings, however, on customer interests and the customer scenario—a blank wall. Volker Jakobs, the head of our Bonn studio, spoke to Peter Struck, one of the members of the commission. [begin recording]

Jakobs: Dr. Struck, Minister of State Bernd Schmidbauer has reported on the findings gathered in the field of nuclear smuggling. Do you feel you are fully informed, or are there still any questions?

Struck: There are still unanswered questions, especially as regards the origins of this material. I have never doubted it is a question of material from the CIS states, particularly Russia. Clearly this has now been confirmed, now that Yeltsin has agreed to German experts examining and discussing this material together with Russian experts at the weekend.

Jakobs: That's a very indirect admission.

Struck: Yes, there has naturally been no statement from Mr. Yeltsin that it comes from Russian stocks—I can understand that. But for me it's not in question, since otherwise the entire joint meeting in Moscow would make no sense at all.

Jakobs: How many cases of nuclear smuggling have come to light so far?

Struck: There have at any rate been more cases than have been discussed of late—the figure of around 300 cases in global history is rumored. But let me stress that this does not just concern Germany.

Jakobs: In what other countries have such matters come to light?

Struck: They have also come to light in other Western European countries. There, however, the situation is such that they have not been discussed with great excitement—the authorities have dealt with the matter in a more discreet manner. That's why this discussion is in fact only going on in Germany—because, thankfully, it can never be kept under wraps by our media.

Jakobs: The secret services have clearly played a certain role in thwarting the nuclear smuggling which ended in Munich.

Struck: Yes.

Jakobs: Is the cooperation between the secret services, and the cooperation between secret services and other authorities, sufficient?

Struck: A distinction must first of all be made regarding cooperation between the secret services—for example, our services with foreign services. In that respect there is quite clearly a lack of proper cooperation with the Russian secret service. The cooperation with American partner services is gratifyingly good. As regards cooperation between our services and German domestic authorities, I think there have indeed been coordination problems. I must also say here, Mr. Jakobs, that I would in no way want a situation in Germany where secret investigators from the Land criminal investigation departments or the Federal Office for the Protection of the Constitution would act as potential buyers and in so doing, as it were, create the very market or represent the very supply we are politically complaining about. We are treading a very fine line there, not least in the sphere of investigations.

Jakobs: Are there any definite findings on the potential customers for this nuclear material?

Strack: Potential customers cannot in fact be private individuals. What private individuals would be in a position to build a plutonium bomb, for example? Rather, when private individuals turn up, they can only in fact be intermediaries for some country or other. And we have no indications of what states are using which intermediaries. I'm not going to start naming countries. I just think that the problem should not be underestimated, because there are definitely countries in the world that are using these means to try to get hold of information and material they would not otherwise acquire. (end recording)

Gerster Implicates States in Nuclear Deals
*AU1708202694 Mainz 3-sat Television Network
 in German 1724 GMT 17 Aug 94*

[Interview with Johannes Gerster, deputy chairman of the CDU/CSU Bundestag Group, by Paul Burkhalter; place not given—live]

[Text]

Burkhalter: This morning the Parliamentary Control Commission of the Bundestag was briefed on the findings made so far in connection with nuclear material that seems to have been smuggled from Russia to Germany. Since May four cases of nuclear smuggling have been discovered. One of the participants in the Commission's meeting was my guest here in the studio, Johannes Gerster, deputy chairman of the Christian Democratic Union/Christian Social Union Bundestag Group. Welcome, Mr. Gerster.

I have just said that the material seems to have been smuggled from Russia. Is it 100-percent sure that the material comes from Russia?

Gerster: There have been several successes in the police's work. One can clearly say that there are two kinds of evidence to show that the most important find, the one in Munich, clearly comes from Russian sources. This has been shown by chemical examinations, and, as a result of other facts, which I do not want to cite here, it is known that the material came directly from Russia.

Burkhalter: Also because of the quality. It is plutonium-239 with a high degree of purity at 99.7 percent, and this can only be produced at certain facilities in Russia. This would be an indication of its origin.

Gerster: There is even clearer evidence. Science can find out whether the material was produced in a facility for civilian purposes or for military purposes, and as soon as this has been determined, it is even possible to determine which facility the material comes from. This is like a kind of fingerprint on the material. It is a very clear matter.

Burkhalter: In your first statement today you said that a qualitatively new dimension has been reached. What does this mean?

Gerster: It is a quantitatively new dimension—for two reasons. First, over the past years there have been more than 300 such cases worldwide, and above all in Europe. What is new about the recent cases is, first, the larger quantity. The past finds were always just in milligrams. Now they are in grams. And from the recent finds it is also known that these were only parts of larger amounts. In one case up to four kilograms was supposed to be delivered. Thus, it is a quantitatively larger problem.

What is even worse, the material did not used to be enriched and, therefore, it was not dangerous and not suitable for weapons. Now this is clearly dangerous, weapons-grade material. In this respect, it is a completely new problem, both in terms of quantity and quality.

Burkhalter: The Federal Intelligence Office [BND] has had an office in Moscow for some months. Why was there no closer cooperation in the past? This would precisely be one field of action for the BND.

Gerster: In any case, there is the will of the heads of the Russian state—let me put it that way—to clarify this matter. However, it is a problem for the political leadership in a Russia in the throws of upheaval to get through to the lower echelons where these things are being tackled. And there we obviously have a deficit.

This does not mean that one should generally verbally abuse the Russians now. We must take these aspects into consideration and, therefore, it is our demand—in addition to cooperation with Russia, which will now start very intensively and in which our experts will advise the Russian security authorities how checks can be improved—that the international community, together with the intelligence services, investigate before such things happen.

Therefore, it is my demand that we must give the German intelligence services—be it the BND or the Federal Office for the Protection of the Constitution—the same legal powers that the French or the British or the Americans have. This is no panacea, of course. Investigations must take place on site. International trafficking must be prevented.

However, in Germany, too, we must be able to use the findings of the BND, which at present cannot be used in court, to put people on trial and take them out of circulation.

Burkhalter: One might also say that the authorities may have been sleeping a little. I just use the catchword top security—this has never been a topic that people associated with something like nuclear smuggling. Has the entire matter been simply underestimated?

Gerster: We have known for three years that something like this exists, but it is becoming increasingly dangerous. However, in politics one must always link measures specifically to certain cases.

Let me give you an example. In Germany, as in other countries, any citizen who learns about a crime and does not report it to the police is punishable by law. The BND still may not use information gained abroad about crimes that involve Germans in Germany, and this is what we want to solve with this anticrime law that has become stalled in the Bundesrat, which has been adopted by the Bundestag but is still prevented by the Social Democratic Party of Germany. This means that we have seen the problem, but the political will is also needed on the part of those who have the majority in other bodies to adopt the appropriate measures.

Burkhalter: Well, let us go back to the topical situation. Who are the sellers? Are they frustrated physicists, who are underpaid in Russia and who are doing a bit of business on the side? And are there still some functioning old groups of the Stasi and the National People's Army, who are establishing contacts?

Gerster: Over the past few days I have been rightly quoted as saying that those involved are Stasi people and people from other East Bloc intelligence services. This has been denied by some. Today's meeting has confirmed my view. Of course, there is this sector, but there are also other people.

We have a red mafia, in particular in Moscow, whose members are effectively selling anything. I am deliberately using casual terms: Today you can buy practically any weapon in Russia, including heavy weapons; the Red Army is being sold off, and partly in a criminal way. This is not the state directly. On the contrary, nowadays the state and its security forces are obviously unable to keep these things under control.

Burkhalter: But this means that actually one cannot keep these things under control at all, and not in the future, either, if things are so convoluted.

Gerster: We must get it under control. From the correspondence between President Yeltsin and Chancellor Kohl I know that President Yeltsin wants to put an end to all this. Quite obviously, the international community must help the Russians with their security problems. Just imagine if this material were to be floating around somewhere and could become material for blackmail.

Let me put it this way: In the past, in the Cold War, we were threatened by Russian missiles. Today this is a completely different threat and, therefore, we must reorient the duties of our intelligence services from the old task to the new one. Then we will be successful.

Burkhalter: Let me ask you a brief final question. Who are the buyers? Are there already some assumptions? Are they terrorist organizations or countries? Or do we not know anything?

Gerster: There are more than assumptions. I can tell you that they are states that want to produce nuclear weapons. There are no indications that the buyers are terrorists or other people. It is rather unlikely that the latter could be involved, because it requires enormous sums of money. In the one case that was discovered, the luggage of the merchant contained \$100 million. This shows that these are enormous sums, which can hardly be paid by private individuals. There are states behind these deals.

Burkhalter: Mr. Gerster, thank you for this information. Thank you very much.

Video Selection List: ARD 94-004

AU1808192694 Munich ARD Television Network
in German 1815 GMT 18 Aug 94

Report by Volker Steinhof Volker Steinhoff and Stephan Wels on the recent discovery of weapons-grade plutonium in Germany.

The report begins with clips from Munich airport, where three plutonium smugglers were arrested on 10 August. The camera also shows the suitcases in which 300 grams of weapons-grade plutonium were hidden.

State Minister Bernd Schmidbauer praises the "purposeful arrest of the three" smugglers and stresses that "the security authorities in our country are alert to such a threat." The correspondent notes that the deal was basically initiated by undercover agents in a hotel in Munich, which is shown by the camera—a "highly doubtful strategy," as the correspondent notes.

Werner Leitner, the lawyer of one of the smugglers, says that the plutonium case of Munich is a "clear case of provoked and imported crime."

The report then moves on to showing clips of a nuclear facility in Chelyabinsk, first the outside and then the inside. The correspondent notes that these are "pictures of strict checks, but it is undisputable that the security problems of Russian nuclear and plutonium facilities are enormous."

The next clip shows the Kurchatov Institute in Moscow, first the entrance and then the camera pans along the crumbling wall around the facility.

According to an official document, a report of the Russian Nuclear Supervisory Committee of October 1993, which was passed on to Panorama, "the current security system does not fully live up to current requirements." The correspondent continues quoting: "The wall around the institute is in a desolate condition and the security system is outdated. As a result, there is no guarantee that unauthorized persons are not stealing nuclear material."

The report continues by noting that the calling cards of two scientists of the Kurchatov Institute were found with Adolf Jackle, who was arrested in Tengen for possessing

plutonium. The correspondent asked one of the two scientists, Boris Kheyvanov, about Jackie, who does "not rule out" that he knows the man, but he cannot remember the name.

This brief interview is followed by several more film clips of the crumbling wall around the Kurchatov Institute.

The correspondent notes that "the Russians are rightly irritated that nuclear material is primarily turning up in Germany. Georgiy Kaurov, spokesman of the nuclear Energy Ministry, says: "We are very surprised. Nowhere has it been discovered that our Russian material turned up, not in the United States, not in France or in Finland, or in any other place, only in Germany."

The report continues with examining the reasons why nuclear material should turn up in Germany. One of the reasons given is Germany's central location.

Subsequently, a document by the Federal Intelligence Service is shown, which claims that there is no market for plutonium in Germany.

The report continues with several recent examples in which policemen, mostly from Bavaria, posed as buyers for plutonium or weapons-grade uranium. Lawyer Werner Leitner says that the market for nuclear material is "artificially created by the investigating authorities."

Then follow clips on the place in Tengen where Adolf Jackie was arrested, who, "according to intelligence service information, had a buyer in a Third World country."

The report continues with film clips from several television programs, showing that journalists, too, have posed as buyers of nuclear material in order to get good stories.

The correspondent stresses that, in particular, the Bavarian Land Office of Criminal Investigations, the building of which is shown by the camera, keeps buying nuclear material.

H.G. von Bock und Poloch, senior public prosecutor of Bremen, says: "In my view, we do not have a market for plutonium. Rather, there is the danger that with our interest, by showing money to buy the material, we are contributing to bringing plutonium to the FRG in the first place. This is something that we, who prosecute crimes, should not do in any case."

In conclusion, Leitner says: "The artificially created demand for plutonium has produced a market for suppliers but not for buyers. On this suppliers' market, there are undercover agents, policemen, intelligence service agents, and, not least, journalists. The millions that are offered in this business are waking sleeping dogs and are attracting innumerable imitators. This is no way to fight crime; this is a way to create crime." (11 minutes, good reception) [A videotape of the newscast summarized above can be ordered directly from FBIS TV Center by calling the following toll-free numbers: 1-800-542-8660

and in Virginia 1-800-822-5515 and by citing the order number (e.g., MOS 93-336) found in the "Subj" line above. Tapes not ordered within 30 days will be erased.]

Expert Says Germany 'Black Hole' for Nuclear Smugglers

*LD1808081794 Berlin DDP/ADN in German
0649 GMT 18 Aug 94*

[Text] Berlin (DDP/ADN)—In the opinion of nuclear expert Haral Mueller, Germany is currently a "black hole" for nuclear smugglers in which plutonium is being picked up by the control authorities. "Only when we no longer find anything during our checks will the situation become critical. For then the smugglers will have discovered channels via which they can supply the customers directly," the employee of the Frankfurt peace research institute said on ZDF Morgenmagazin today.

The amounts of plutonium which have been found in Germany so far are relatively small. In Mueller's opinion, a large illegal store does not exist. The expert believes Iran, Iraq, and Libya to be potential customers. "But these countries are holding themselves back until there is enough plutonium on the market. If they act before then, the risk will be too great," Mueller said.

In the long-term, it is important to improve controls of the storage of uranium and plutonium in states with nuclear weapons. In the short-term help is also necessary. This includes better pay for workers in Russian plants and the installation of modern surveillance equipment.

Paper Claims Plutonium Smuggler Working for DPRK

*LD1808152994 Berlin DDP/ADN in German
1450 GMT 18 Aug 94*

[Text] Bonn (DDP/ADN) - The suspected nuclear smuggler Adolf Jaeckle was acting on behalf of North Korea, according to the Cologne EXPRESS. The communist country had intended to provide one million dollars for the purchase of weapons-grade material, the paper reported today, quoting Bonn security circles.

Jaeckle was authorized to make use of that amount, the paper reported. According to the findings of the German authorities, the six grams of plutonium 239 that were found in Jaeckle's garage in Tengen in May originated from a Russian nuclear research plant.

Russian Experts Criticize Policy on Plutonium Smuggling

*AU1808115094 Hamburg STERN in German
18 Aug 94 pp 16-23*

[Report by Jochen Piest and Matthias Schepp, "with the cooperation of" Wolfgang Krach and Uli Rauss: "Death Greetings From Moscow"]

[Excerpts] [passage omitted] Germany has become the most important theater of international nuclear smuggling. According to a staff member of the Russian counterintelligence service, this is attributable to, among other things, the fact that German investigators bait Russian nuclear dealers with super prices.

The methods used by the Germans are not without risk. Moscow nuclear expert Aleksandr Penyagin, chairman of the Fund for the Elimination of Damage Caused by Radiation, considers the Bavarian operation a "damned cynical game." "The Land Office of Criminal Investigation could have rounded up the dealers in Moscow. Instead, they allowed them to transport the plutonium by passenger plane 2,000 km across Europe. What would have happened if the plane had crashed—after all, there was a potential second Chernobyl on board!"

Officials in Munich say, however, that there was no danger for the passengers. Bavarian Interior Minister Guenther Beckstein defended the plutonium purchase of his investigators. He used the failed million-mark deal to demand that a "clean legal basis" be created in the Federal Republic, so that in cases as the Munich deal, the liaison people do not have to stop at the "sample quantity." Beckstein said this was the only way—if at all—to catch the real masterminds of international organized crime.

German investigators and politicians are seeing the nuclear chaos in the states of the former Soviet Union as the main reason for increasing smuggling activities. Federal Chancellor Helmut Kohl will discuss the "terrible matter" with his friend Boris Yeltsin as soon as possible.

The Germans have good reason to assume that in connection with smuggling of the highly dangerous stuff, "capitalist greed and old communist security apparachiks make common cause," as Bavarian Interior Minister Beckstein put it. The criminals who were arrested in Munich apparently had "excellent contacts with Russian security circles," the Christian Social Union politician said on 15 August. [passage omitted]

"It is extremely easy to take radioactive material from factories or storehouses," Aleksandr Penyagin, a nuclear expert in Moscow, says. Workers in the Arsamas-16 nuclear factory made a bet the other day on whether it was possible to take 8 kg of any type of metal past the guards out of the factory premises. They succeeded—with a simple trick. One of them hid a piece of steel under his overall, pretended he had stomach trouble, and was dragged to the ambulance by two colleagues—no one checked them. The same quantity of plutonium would have sufficed to build an atomic bomb.

"We need a new, international, and independent control system for plutonium," Penyagin demands in an interview with STERN. So far, the nuclear factories have had their own guards. "What interest should they have to report cases of theft or accidents?" [passage omitted]

An official of the Russian Nuclear Control Board, who asked not to be identified, explains how to take away larger quantities of weapons-grade plutonium. He says that when plutonium is produced in a quick breeder it is quite possible, with the exchange of 100 fuel rods, to produce a kilogram more than is required by the standard. Then the official value is recorded in the books, and the excess quantity is sold on the black market. The factory checks hardly represent an obstacle. He says he knows nuclear factories in which people can throw the stuff over the wall unhindered.

Russian Nuclear Energy Minister Victor Mikhaylov denies all these reports and said last weekend [13-14 August]: "We checked our stocks recently and did not note any cases of theft or losses of plutonium 239." Then a spokesman for his ministry disputed all Russian responsibility and put the blame on the Germans: One was closely watching the cases of smuggling of recent weeks; however, after all, all of them happened in Germany. Nuclear expert Aleksandr Penyagin says: "Simply to dispute everything is not only foolish, but also irresponsible." He adds that not only Russia, but the whole world is threatened. [passage omitted]

Lithium 6 Reportedly Also Found in Munich

AU2208160894 Hamburg DER SPIEGEL in German
22 Aug 94 pp 18-25

[Unattributed report: "Death and Terror From the Laboratory"]

[Excerpts] The container looked like a box of cookies, but the contents were dangerous. When the experts of the European Institute for Transuranic Elements in Karlsruhe examined the suspicious box on 17 August, they first put the container under a gas-proof hood. Then they opened the tap of a protective gas line.

With a hiss, nitrogen streamed in under the gas hood—a precaution to make the potentially explosive contents of the round tin harmless.

Only then did the physicists examine the material. They took a sample with the help of a probe.

The result of the analysis alarmed the government in Bonn: The cookie tin contained up to one kg of the metal lithium 6—a key element for the most devastating of all weapons: the hydrogen bomb.

The chancellor's office ordered all people involved to keep strictly silent—for good reason: The lithium came from the same source as the 330 grams of plutonium, which policemen had seized at Munich Airport on 10 August.

Like the plutonium container, the lithium tin was in the luggage of the three Lufthansa passengers from Moscow, two Spaniards and a Colombian, who were arrested immediately upon their arrival in the Bavarian capital and have been in detention pending trial ever since.

Horror reports about the hydrogen bomb were the last thing that the politicians in Bonn would have needed in the public discussion, which had already escalated because of the plutonium find in Munich.

The coincidence of two events, which dominated the headlines last week, made it clear quite suddenly that the threat to the world has entered a new dimension: Top terrorist Carlos aka Ilyich Ramirez Sanchez, who was detained in Sudan, is linked with more than 80 murders. With the help of the nuclear material, which was seized in Munich, a megalomaniac state, a crazy billionaire, or a potentially criminal gang of blackmailers could spread incomparably more death and devastation.

The equally somber reverse side of the coin: After the demise of the superpower Soviet Union, it could now become true what nuclear critic Robert Jungk somberly predicted more than 15 years ago: The plutonium state must mutate into a police state, because society can no longer guarantee its own security in any other way.

However, we are warned of even greater dangers: While the building of a nuclear bomb or of a hydrogen bomb requires enormous technical know-how and even more dollars, the opponents in the Cold War developed far cheaper destructive materials on the side, which are also easier to handle for minor gangsters and which are lying around in masses in the crumbling arsenals of the CIS states, hardly better secured than the nuclear stuff: biological and chemical combat agents—new, terrible weapons for a worldwide gang of blackmailers, which might one day go beyond any traditional criminal dimensions.

Any state and any society can be blackmailed with the threat of plague and cholera. Goldfinger and Dr. Mabuse send their greetings.

In a confidential report to the Chancellor's Office, the Federal Intelligence Service (BND) assumes that the collapse of the former Soviet Union "has tangibly increased the risks of a proliferation of mass destruction means."

The BND sees the emergence of "a serious and growing danger to world peace":

"On the one hand, there are enormous amounts of corresponding weapons on the territory of the former Soviet Union; on the other, there is an enormous potential of corresponding know-how available there.... In connection with the desolate economic situation of the successor states of the Soviet Union, the helplessness of numerous executive authorities toward criminal phenomena, the widespread corruption in the security organs, as well as a largely disassembled army, this results in an extremely risky situation."

At the same time, the BND warns that countries such as Iran, Syria, and Pakistan—states that have all strengthened and promoted international terrorism in the past—are on the point of establishing their own production of

biological destruction weapons. And no one can guarantee what these regimes are going to do with them.

So far, there has been a lack of buyers for the new instruments of terror and blackmail on the nuclear black market. The trade was dominated by a colorful group—gamblers and soldiers of fortune, old generals of the KGB and young capitalist businessmen as alleged suppliers, liaison men and intelligence agents as alleged buyers. However, last week the security authorities found the first clues that dictatorships are on the market, trying to get plutonium for building a bomb. [passage omitted]

The BND thinks it is "little likely" that North Korea "already has usable nuclear weapons at the moment." According to the intelligence service men, North Korea is maintaining "a largely illegal network with a seat in Western Europe" for its nuclear program. [passage omitted]

In its confidential report of May 1994, the BND warned against the efforts by states such as Iran, Pakistan, and Syria to produce biological combat agents. According to the BND dossier, "at the end of the 1980's" Iran "began its research for biological weapons"; it "is to be assumed that it already has minor amounts of biological combat agents."

According to the BND, "the Centre des Etudes et de Recherche Scientifique (CERS) in Damascus" is considered to be the center of biological weapons research in Syria. Intelligence service findings say that "research has focused on bacteria and toxins so far."

"Various clues," the BND continues, indicate that Damascus is developing "combat agents on the basis of botulinus toxin and *Bacillus anthracis*."

It is difficult to think of worse scourges being available to terrorists and blackmailers. [passage omitted]

Peter Kroemer, senior official in the Federal Office of Criminal Investigations, says that there are still "no police findings indicating that biological combat agents are being offered on the illegal market." However, "if these materials get on the illegal markets, it is even more difficult to recognize them than radioactive materials," Kroemer warned. [passage omitted]

The summer meeting of the Federal Cabinet last Wednesday morning was almost over when Vice Chancellor Klaus Kinkel asked what the security situation was like.

Interior Minister Manfred Kanther answered laconically: The facts about the terrorist Carlos can be read in the newspaper. In addition, there is the problem of the smuggled plutonium. Obviously, people are testing whether there is a market for it and which prices can be gotten, the minister said. That was all.

State Minister Bernd Schmidbauer, coordinator of the intelligence services in the chancellor's office, was, in

contrast to his usual habits, equally tight-lipped. One only has vague information from the CIA that states, such as North Korea, could be the buyers of the weapons-grade plutonium that was seized in Germany. It is clear that the "criminal scene" has plutonium, but it is unclear for what purposes it intends to use the material.

The ministers renounced any discussion. Reserve Chancellor Kinkel admonished the group not to "become hysterical" now, and in an attack of self-critical insight, he added: "I do not know how this can be gotten under control."

The political caste in Bonn is profoundly insecure. At the meeting of the Parliamentary Control Commission (PKK), the Bundestag's intelligence service committee, on Wednesday, representatives of the coalition and the Social Democratic Party of Germany [SPD] opposition agreed to keep the horrible issue of plutonium out of the election campaign.

Intelligence Service Minister Schmidbauer told his associates what he would prefer to keep from the public so as not to alarm anyone: The Germans are virtually helpless against the new dimension of terrorist attacks.

What should one do, Schmidbauer asked excitedly, if the Chechens call the chancellor's office and demand 50 or 100 million German marks by pointing out that they had contaminated the customers in the largest department store in Berlin with hidden fissionable material?

The only thing those in power can think of to counter the danger are stricter security laws. Already during the Gulf War Christian Democratic Union/Christian Social Union Bundestag Group chairman Wolfgang Schaeuble thought about how Bonn could defend itself against potential attacks by Iraqi commandos using nuclear, bacteriological, or chemical agents.

At the end of last year he announced the solution to his deputies in writing: "In case of major threats to internal security," the Bundeswehr must act.

Schaeuble's demand means not only a turning away from the dogma of the West German postwar policy that the Army may be used for combat missions exclusively against external enemies. It also shows that Robert Jungk's prophetic warning of the plutonium state was certainly realistic. The army as the guarantor of internal security—this has already existed in Germany once.

The nuclear contamination of the basic rights has already started: The anti-crime law, which was adopted in May with a majority in the Bundestag, for the first time gives the BND, which has so far been restricted by law to reconnaissance abroad, the legal opportunity to also snoop inside the country.

In the struggle against the smugglers of weapons, drugs, and nuclear material, the BND is to be permitted to use its know-how to monitor conversations on radio telephones and, logically, to thus include national radio

telephone transmissions. Thus, in the future, anyone can get tangled up in the nets of the intelligence service.

"Linking intelligence service methods with coercive police powers," Bremen's SPD Justice Senator Henning Scherf admonished, "was characteristic for the Secret State Police of the Third Reich." For 40 years, there was a consensus that the strict separation of police and intelligence service is an indispensable quality of the liberal rule-of-law state. Now, however, the Federal Government wants "a police intelligence service as well as an intelligence service police."

The SPD has stopped the law in the Bundesrat for the time being. It is to be discussed in the Mediating Committee at the beginning of September. However, the pressure on the Social Democrats to give in is growing in view of the expanding nuclear black market.

The BND wants even more. According to current law, Germans are punishable by law if they handle nuclear, biological, or chemical combat agents at home or abroad without a permit. The BND wants to be expressly exempt by law from this regulation to undermine the market. "This would be a very considerable contribution to our country's security," Schmidbauer, the chancellor's helper, claims.

Free Democratic Party of Germany [FDP] Chairman Klaus Kinkel does insist that he is strictly against expanding the powers of the police or the intelligence service, but the FDP man would be in a better position if he could think of more than of the unrealistic advice: "Nuclear smuggling must be combated where it originates—in the places of origin of the deathly goods."

According to German and U.S. information, these places of origin are located in chaotic Russia. Material, as it was found in Tengen and Munich, betrays its origin by the way in which the many variations ("isotopes") of the elements plutonium and uranium are composed. Experts can turn the combination of isotopes into something like a fingerprint, which permits the identification of the source of the material.

The finds at Tengen and Munich come from different sources. According to the investigations of the nuclear researchers so far, Jackle's shipment was produced in the chemical combine Mayak—also called Chelyabinsk 65—or in Smolensk.

The Munich find is of lower quality, containing 87 percent of plutonium 239. The likely source is the fast breeder of Beloyarsk in western Siberia, according to nuclear experts. However, the material is still of weapons-grade quality.

Like many of the nuclear comedies, the case of Munich began in the smuggler milieu. A few men, who were all rather broke, wanted to make a very big deal.

The partners were Colombian Justiniano Torres Benitez, 38, who had long dreamed of the big coup, as well as

Spaniards Julio Oroz Eguia, 49, and Xabier Bengoetxea Arratibel, 59, a man from San Sebastian.

Bengoetxea has already suffered a few bankruptcies. Oroz had tried his luck as a construction entrepreneur in the Basque country, had been a logger in Canada, and had attracted attention at home because of large debts.

The lead man in the nuclear shocker was Torres. The physician has been married to a Russian since 1991 and is known for his links with the colorful people of Moscow society.

The plutonium story began a few months ago. At first, Torres tried to make profit with a cement deal, but he failed. Then he wanted to earn a few marks through military helicopters. The deal fell through. Finally, a certain Konstantin called him in secret and told him about a miraculous deal with plutonium. Torres was worried because of the risks. But his creditor were pursuing him.

On 9 July, the three men went by train from Moscow to Munich. In their luggage they had 4 grams of weapons-grade plutonium. However, the BND had long known of the matter and had alerted the German authorities.

For weeks the trio negotiated with liaison man "Rafael"—who speaks fluent Spanish—and another representative of the Munich Land Office of Criminal Investigations in the Excelsior Hotel in Schuetzenstrasse.

The three dealers kept asking for money. The undercover agents promised \$70,000 per gram of plutonium—\$230 million in total, a memorable sum.

At some time they also talked about the material for a hydrogen bomb—lithium 6. The investigators were very pleased.

On 25 July, the Colombian and his Spanish friends handed the lead container with the sample to "Rafael." Torres and Bengoetxea went back to Moscow—to get even more nuclear material.

On 10 August, Torres and Bengoetxea returned to Munich. The buyers had assured them that there would be no problems with the customs officials in Moscow. In their luggage, hidden between clothes and a few books, they had plutonium and lithium. When Torres and Bengoetxea arrived, the trap closed.

So far, the investigators know as little about the men behind the three from the airport as about the real wire pullers of Jackle, the merchant from Tengen. Was the man indeed acting on the orders of the North Koreans, as the CIA told Bonn speculatively? The man is telling confused stories to those who question him.

During an interrogation, Jackle claimed that he bought silver nitrate from Korea. He did not reveal to the interrogators that he also had business ties with the North Korean Golden Star Bank in Vienna.

The North Korean bank in Vienna's Kaiserstrasse is not at one of the best addresses. In the past, a deal with forged money, which was embarrassing for the North Koreans, went across the counters of the Far Eastern bank: When the Golden Star bankers had to deposit \$100,000 for a transaction, there were also about \$10,000 in forged notes among the real banknotes.

Last week, Jackle's cell in the Erding prison was searched. The wardens even looked in his anus for secrets.

Now Jackle wants to squeal. His Munich lawyer, Roland Hasl, told DER SPIEGEL last Friday that his client will soon provide further information about hidden plutonium depots in Europe.

It seems that those responsible have not yet quite understood the new situation. When the nuclear experts in the Karlsruhe Institute for Transuranic Elements were given the mysterious cookie box, they did not immediately put the container into one of the boxes that are to protect people against radioactive radiation.

In order to supervise the operation, the nuclear experts first called a conventional explosives expert—better safe than sorry.

Schmidbauer Wants Law Changed To Help Combat Nuclear Trade

AU2208133094 Hamburg DER SPIEGEL in German
22 Aug 94 p 24

[Interview with Minister of State Bernd Schmidbauer, federal government intelligence coordinator, by an unidentified interviewer; place and date not given: "I Swear"]

[Text]

DER SPIEGEL: Mr. Schmidbauer, how great is the danger of Germany's being contaminated with plutonium by blackmailers or terrorists?

Schmidbauer: I do not want to create a panic, but I take this danger very seriously.

DER SPIEGEL: What should one do?

Schmidbauer: The best way of combating nuclear blackmail is to deal with the problem at the very source. Only by sealing the leaks in nuclear facilities will it be possible to prevent nuclear moves by terrorists.

DER SPIEGEL: That can certainly not happen right away. What will happen in the meantime?

Schmidbauer: There should be changes in the law to make the work of the security services easier. In view of the extent of the danger, I believe it would be appropriate to increase the penalties for people who traffic in nuclear materials.

DER SPIEGEL: You want life imprisonment for nuclear dealers, just as Bavarian Interior Minister Beckstein does?

Schmidbauer: The punishment should act as a deterrent.

DER SPIEGEL: Why is Germany of all places turning into a center for weapons-grade plutonium?

Schmidbauer: There have been around 300 cases of nuclear smuggling in a number of European countries, from Sweden to Turkey. Germany is not the center. The fact that two attempts to trade in illegal weapons-grade plutonium were discovered in Germany can be attributed to the vigilance of our security authorities.

DER SPIEGEL: Perhaps it is these very services that, by means of fictitious offers from their staff, are luring this material to Germany.

Schmidbauer: This danger must be considered, of course.

DER SPIEGEL: What is the role of the Bundesnachrichtendienst [BND] in this?

Schmidbauer: I swear that the BND is not a recipient of illegally-offered nuclear materials. I have expressly forbidden the BND to acquire it.

DER SPIEGEL: But other western security services are supposed to be acquiring nuclear materials in Germany.

Schmidbauer: I have no information on that.

DER SPIEGEL: But you want to permit the BND to purchase nuclear material abroad, something that the BND has not been allowed to do up to now?

Schmidbauer: Yes. It should be legally possible for the BND to carry out reconnaissance action close to the sources of the dangerous material. That can only be done by obtaining samples of the nuclear material already on the market. Also important is that the BND receive and process all information on the activity of German citizens involved in the nuclear trade, including information obtained from telephone tapping. The relevant law is long overdue.

DER SPIEGEL: Does Germany need a task force against nuclear actions, like the one that has existed in the United States since 1975?

Schmidbauer: We have an advanced nuclear immediate information system that guarantees cooperation between the authorities responsible for counteracting dangers and offering protection against radiation. But further improvements are possible.

Waigel Urges Russia To Cooperate on Nuclear Smuggling

*LD2208163194 Berlin DDP/ADN in German
1430 GMT 22 Aug 94*

[Text] Munich (DDP/ADN)—Theo Waigel, CSU [Christian Social Union] chairman and German finance minister, has called on Russia to cooperate closely in combating the smuggling of plutonium and other radioactive

material. Otherwise, Russia is not entitled to be admitted to the ranks of the G-7 nations, Waigel said in Munich today following a meeting of the CSU executive. Waigel described the smuggling cases that have come to light as a "great challenge." He will push for the subject of plutonium smuggling to be discussed at the next G-7 summit. As the head of the customs authorities, he will do everything in his power to stop these incidents.

Kohl Appeals to Yeltsin on Plutonium Issue

*AU2208163994 Hamburg WELT AM SONNTAG
in German 21 Aug 94 pp 1-2*

[Report by Heinz Vielain: "Nuclear Smuggling—Chancellor Kohl Sends Urgent Letter to Yeltsin"]

[Text] Bonn—Federal Chancellor Helmut Kohl fears that illegal plutonium and uranium deals will get out of control. According to information obtained by WELT AM SONNTAG, Kohl wrote a letter to Russian President Boris Yeltsin for the second time in several days, calling upon Moscow to take resolute measures against plutonium and uranium deals. Minister in the Chancellor's Office Bernd Schmidbauer is currently discussing relevant proposals with Moscow government authorities.

Yeltsin must make sure that no "fissionable material be drifting in the world," Kohl's letter says. The German ambassador to Moscow handed the letter to President Yeltsin, who is currently vacationing on the Black Sea. In the letter, Kohl asks Yeltsin to do everything in his power to prevent any fissionable material from getting out of control. He writes that they both should have an interest in involving highly qualified scientists in clarifying the incidents, so as to establish a maximum degree of security.

Yeltsin had assured the federal chancellor in writing on 12 August that, in his view, the plutonium seized in Germany did not come from Russia. However, at the same time, the Russian president had stated his readiness to take preventive measures to prevent nuclear material in his area of jurisdiction from being circulated.

According to information obtained by WELT AM SONNTAG, Federal Chancellor Kohl has suggested that, with the help of the Western countries, more should be done than heretofore to prevent highly qualified scientists of the former Soviet Union from offering their knowledge to nuclear threshold countries out of financial need. The chancellor wants to urge the West to make available more means to employ such scientists. That is why Kohl will suggest to the United States and other countries involved in financing a relevant program that the 70 million German marks [DM] that have been made available internationally so far should be increased to DM100 million.

So far, Germany has helped finance an international research institute in which numerous Russian scientists are employed. The chancellor wants this institute to be extended.

Kohl's suggestions form part of the talks that Schmidbauer has held in Moscow since 20 August with Russian Intelligence Service Chief Sergey Stepashin and representatives of the Russian Nuclear Energy Institute. The chancellor wants to see all control measures extended on the whereabouts of plutonium and other material required for the production of atom bombs. To achieve this, the intelligence services should also be involved.

Konrad Porzner, president of the Federal Intelligence Service (BND), and Eckart Werthebach, chief of the Federal Office for the Protection of the Constitution, support Schmidbauer in his negotiations. Other members of the German delegation are State Secretary Kurt Schelter of the Federal Interior Ministry and several experts from the Karlsruhe nuclear research laboratory.

With their help, it is to be proved that the plutonium seized in Germany comes from Russia. According to information obtained by WELT AM SONNTAG, a number of examinations have been carried out in Karlsruhe. Through analyses of the material, it has been found out with high probability where and how it has been produced. The production method employed in this case exists only in certain facilities in the area of the former Soviet Union.

Federal Government officials say that the BND, which is responsible for foreign intelligence, has done an excellent job in uncovering nuclear smuggling in Germany. The decisive lead that led to the seizure of 300-350 grams of weapons-grade plutonium in Munich came from the BND. Subsequently, the Bavarian Land Office of Criminal Investigation found out that a deal involving four kg of the stuff had been initiated; five kg are sufficient to build an atom bomb from this material if it has a medium technical state of development.

According to these sources, Minister of State Schmidbauer has spoken about a new threat to Western security. Numerous Russian nuclear experts could be hired by nuclear threshold countries. According to Schmidbauer's analysis, the following countries are involved:

- India: Four Russian scientists have allegedly applied for employment.
- Iraq: 50 nuclear experts are reportedly in Iraq, including a laser specialist from the Russian nuclear development center Arsamas-16 and an expert of multiple warheads for missiles from Ukraine.
- Iran: Since the end of 1991, 14 nuclear scientists from CIS republics have allegedly been in Iran. Employment contracts were allegedly concluded with over 50 nuclear experts and 200 technicians.
- Libya: Official offers to two Russian nuclear experts were turned down by these experts. However, several Russians are reportedly employed in Libyan research institutes.
- Algeria: Allegedly several Russians have been hired.

—Brazil: Reportedly the Brazilian Embassy in Moscow has sent to Brasilia the applications of 60 CIS scientists who are interested in employment abroad.

—People's Republic of China: Early in 1992, the Chinese Army General Staff issued directives on the selective recruitment of nuclear experts.

Origin of Plutonium Found Remains Unclear

*LD2208123594 Moscow ITAR-TASS in English
1157 GMT 22 Aug 94*

[Article by ITAR-TASS correspondent Olga Semyonova]

[Text] Moscow August 22 TASS—The origin of the plutonium 239 found by Bavarian police at the Munich airport remains unclear. Even after Bernd Schmidbauer, special representative of the German chancellor, travelled to Russia specially to discuss the origin of the weapons-grade nuclear material with Russian officials, the two sides could not come to a final conclusion.

The delegation led by the high-ranking German official, who is responsible for coordinating the activity of his country's special services, met with Russian intelligence officials on Monday. Nevertheless, according to information possessed by ITAR-TASS, their meeting did not end in an agreement on the given problem.

Since the German side did not present real samples of the confiscated radioactive material, the Russian scientists were forced to rely on the analyses done in European research centres. According to one of the participants in talks, Russia does not have the practical capabilities to use nuclear materials with the characteristics of that found in the German "Lufthansa" airliner.

ITALY

Copper To Be Used in Nuclear Fusion

*BR1808142294 Milan II SOLE-24 ORE in Italian
13 Jul 94 p 9*

[Text] Lucca. Who said that copper is an exploited sector? "In Italy alone," explained Rosolino Orlando, vice president of SMI, a leading European company in the transformation of copper, "per capita consumption has increased from 10 kilograms in 1983 to 17 in 1993. And large countries like China and Brazil, where consumption is still very low, offer great margins for development." So much so that the Florentine group is not just looking out the window.

EU [European Union] Research Commissioner Antonio Ruberti visited the Europa Metalli research center—the group's principal operating company led by Luigi Orlando and listed on the Milan stock exchange—in order to examine the status of the NET-ITER [Next European Torus - International Thermonuclear Experimental Reactor] project that is being funded by the EU, United States, Russia, and Japan, and whose goal to

establish the first nuclear fusion plant in the early part of the next century with an investment of \$7 billion at current rates. "At the time being," comments Romano Toschi, one of the people in charge of NET-ITER, "the project offers more certainties than the great dream of cold fusion. Without considering that, as opposed to the fission processes of current nuclear plants, it will be able to guarantee safety margins that are enormously superior." As it is by no means difficult to imagine, copper will not take the place of the radioactive materials that "light" the generation of nuclear energy. However, it forms the basis of the gigantic magnets that are needed (or rather, will be needed) to explore the new frontiers of energy.

Nevertheless, even though copper will continue to find new industrial applications in the automotive industry, electronics, and construction (thereby guaranteeing SMI new commercial horizons), it is not sufficient to transform itself into magnets for the nuclear plants of the future. And this is precisely where the little wonder lies. The company was founded in the province of Lucca in 1914 by Luigi Orlando—the grandfather of the current president of Confindustria [General Confederation of Italian Industry]—as a munitions factory. It later became the object of several industrial reconversions and today is one of the leaders in the quality production of traditional copper processing. But today—thanks to its commitment to research that also involves that French company Trefimetaux, which it controls, and the German company Kabelmetal—it has launched high tech productions such as the sophisticated cable for the NET-ITER magnet which, in a diameter measuring just a few centimeters, contains millions of filaments made of niobium and tin or other noble metals.

"The important fact," comments Europa Metalli Managing Director Attilio Rodella, "is that the most modern applications of copper do not stop at magnets for the nuclear fusion of the future. They range from magnetic levitation trains to biomedical instruments. And there are no limits to future developments."

Ruberti himself, who expressed his admiration over the "mixture" of innovative research, applied research, and the quality of the production put into practice by the Orlando group, does not hide the fact that the global market challenge of the next century lies on this very front. "Japan, however," said the commissioner, "has already announced that it will double research funding by the end of the century. And all of Europe, with all its industry, will have to make a major effort on this front. If it does not want to be excluded."

NETHERLANDS

Smuggled Plutonium in Germany Worries Authorities

94WP0141A Copenhagen BERLINGSKE TIDENDE
in Danish 17 Aug 94 p 1

[Article by Soren Ostergaard Sorensen: "Round-the-Clock Shifts To Combat Nuclear Smugglers"]

[Text] Berlin—Once again the German police have taken action against plutonium that was smuggled into the

country. In Denmark health physicists are prepared to turn out at any time of the day or night if dangerous radioactive material is found.

The Danish police, the intelligence service, customs officials, and nuclear experts have intensified their cooperation so they will be prepared to step in if the rapidly growing illegal trade in radioactive material reaches the Danish border.

"This is a very serious development," said Kaare Ulbak, head of the State Institute for Radiation Hygiene, following the recent disclosures concerning plutonium that was smuggled into Germany.

"With the disintegration of the former Soviet Union, the new countries' control mechanisms in relation to radioactive material apparently broke down, and we are aware that the kind of situation that has arisen in Germany can also happen in Denmark," said Ulbak. The institute, under the Public Health Service in Copenhagen, has set up round-the-clock shifts so that qualified health physicists can be dispatched at short notice to assist the police and customs officials if dangerous radioactive material is found.

The head of the National Police Bureau's emergency division, Police Commissioner Henning Thiesen, feels well prepared for such a situation.

"We have established guidelines for how to act in this kind of situation. We are comfortable with them," said Commissioner Thiesen. "But as with international drug trafficking, we cannot seal Denmark off with barbed wire," the commissioner told BERLINGSKE TIDENDE.

Yesterday police authorities in Bremen, south of the Danish border, confirmed the fourth seizure of illegal nuclear material in Germany this summer.

UNITED KINGDOM

Options For Decommissioned Nuclear Submarines Assessed

MM1608100494 London FINANCIAL TIMES
in English 16 Aug 94 p 7

[Article by Bernard Gray: "Doomed Flotilla Finds Itself on the Beach"]

[Text] U.S. nuclear submarines meet a curious and surreal fate—the boats designed for the deep oceans of the world end up buried in the desert, which is considered the safest place to allow their radioactivity to decay naturally.

Britain has no desert in which to bury its retired submarines and so they languish in the two nuclear dockyards, Devonport in Plymouth and Rosyth in Fife.

There are seven boats at the two yards. The hunter-killer boats Dreadnought, Swiftsure and Churchill with the

Polaris nuclear missile boat *Revenge* are at Rosyth, while hunter-killer boats *Courageous*, *Warspite* and *Conqueror*, the submarine that sank the Argentine cruiser *Belgrano*, sit mournfully side by side in an unused dock at Devonport.

The government's policy on the boats is to do nothing for the time being.

Each submarine has had its highly radioactive fuel and nuclear cores removed and sent to British Nuclear Fuels for storage and eventual disposal. The hulls are sealed and the reactor compartments—radioactive as a result of long exposure to the nuclear cores—are being allowed to cool down over a period of years.

Since the risks and costs of sawing up the hulks will be lower once some of the radioactivity has decayed, the government argues that there could hardly be a better place for the reactor compartments than inside the strong pressure hulls of the submarines.

The Ministry of Defence [MoD] said: "There is no urgency. With the cores removed most of the radioactivity has gone and the remaining radioactivity continues to decline."

The policy of laying up the boats where they are decommissioned is likely to result in a sizeable flotilla at both Rosyth and Devonport over the next few years. Eleven nuclear submarines—including all four Polaris boats—will have been decommissioned by the end of the century. If normal practice is followed the Polaris boats will go to Rosyth, where all of their maintenance work has been carried out.

While the MoD is content to play it cool, the options for final disposal are very limited. The boats cannot be taken out to sea and scuttled because that would violate the international moratorium on nuclear dumping.

Burial whole in a dry-land site, which would prevent the radiation leaching into the water table, is difficult in a crowded and notoriously wet island.

The remaining option is disposal in the nuclear waste repository which is planned by the government, but which has yet to get approval and will not be available until 2005 at the earliest.

Even that would require the radioactive compartments to be cut up, an expensive job that the MoD is understandably in no hurry to start.

As a result, Rosyth, Devonport and all of their potential users are likely to have to get used to the sight of disused nuclear submarines.

'Worst Scenario' Links Plutonium to Algeria, Iran
LD1808204594 London PRESS ASSOCIATION
in English 1850 GMT 18 Aug 94

[By PRESS ASSOCIATION correspondent Moira Whittle]

[Text] News that Pakistan was trying to acquire more nuclear material was "worrying" but not the worst scenario, a British academic said today. Dr Beatrice Heuser, lecturer in nuclear strategy and European security at King's College, London, said fears would be greater if the plutonium had been linked to Algeria or Iran, for example.

Most alarming was the threat from an individual terrorist who could blackmail a country with just the claim of having such radio-active material.

"It's obviously concerning that we don't know whether this is the tip of the iceberg or whether this is one out of one," she said. "The most concerning thing is that it's happened in the first place which means it can happen. On balance it's very worrying. It shows that Russia hasn't got a grip on its material. All of us are in for a very rough ride if that stuff is on the market and can be seized," she said.

India and Pakistan were both thought to have a potential to assemble nuclear weapons but did not have them ready-made. But if Pakistan were acquiring more nuclear material it would affect the balance of power in the area, and could influence the future of the disputed Indian state of Kashmir, said Dr Heuser.

International pressure was sure to follow, perhaps in the form of trade sanctions. "From our point of view it is almost a relief that Pakistan has been mentioned in this context. We have assumed there are many countries who could have nuclear potential if they wanted to. What we are most afraid of is that there's yet another country we don't know about," said Dr Heuser.

However, the more countries there were with nuclear weaponry, the greater the risk to the world because the chance of "irrational" leaders coming to power would increase.

Dr Heuser also expressed concern for the safety of nuclear installations in Russia in general, saying the temptations for individual guards at nuclear installation were "enormous".

Their morale was low because they were going through dramatic readjustment processes as a result of massive political changes and they were short of money. This laid them open to corruption.

She considered the best move would be for the International Atomic Energy Authority to be able to gain control of the Russian sites but this was unlikely as it would be considered an affront to the nation's sovereignty.

"I think it's the only way to stop this illicit trade," she said.

The world's military stockpile of plutonium in 1990 was put at 250 tonnes with the vast proportion of that being held in Russia and the United States. Other countries with military plutonium are France, UK, China, Israel, India, and Pakistan, according to Greenpeace.

Civil plutonium, which can be turned to military uses, was put at 120 tonnes. This was held in descending order in Japan, France, Germany, UK, Russia, Switzerland, Belgium, North Korea, Spain, Netherlands and the United States.

However, civilian stockpiles are estimated to increase greatly to 500 tonnes by 2010.

Expert Says Enough Plutonium Smuggled To Build Nuclear Bomb

AU1808181494 Mainz ZDF Television Network
in German 1700 GMT 18 Aug 94

[Theo Koll report on interview with British "nuclear expert" John Large; place and date not given—recorded; in English with superimposed German translation]

[Text]

Koll: The price of plutonium varies according to its condition and the nuclear facility it comes from—\$250,000 to \$300,000 per kilo. A British nuclear expert has told us that he had been offered plutonium at that price. Small amounts were supposed to be sent to the West to be examined and then larger amounts would have followed. John Large says that the serious offers came not from the Mafia but from managers of Russian nuclear facilities.

Large: These were serious offers being made. I was supposed to ask Western companies whether they wanted plutonium. But the issue is not just plutonium or enriched uranium, the issue is a number of high-quality substances that are on the proliferation list. The Russian nuclear industry is like a tea-bag, it is leaking all over the place.

Koll: Do you believe that a sufficient amount of plutonium has already been brought out of Russia?

Large: If one tries to plug the leaks, another way will be found. At the moment Germany is the geographic hole. I would guess that a sufficient amount of plutonium has been smuggled out of Russia for the nuclear program of a developing country.

Koll: Sufficient for a bomb?

Large: Yes, I would guess so.

Businessman Reveals Requests To Smuggle Nuclear Materials

LD1808193694 London PRESS ASSOCIATION
in English 1727 GMT 18 Aug 94

[By PRESS ASSOCIATION correspondent Moira Whittle]

[Text] An engineering consultant today told of being approached to become involved in an illicit doomsday trade in nuclear materials.

John Large's revelation comes in the wake of a seizure in Germany of plutonium powder smuggled from Russia and thought to be en route for Pakistan. Mr Large, who runs a company in south-east London, said he had been approached more than once on business trips to Russia over the past five years.

Senior nuclear plant employees had asked him if he could set up tests in Western laboratories to establish the quality of nuclear material. But Mr Large would not say on whose behalf he was asked.

The quantities to be tested would have been the size of an old sixpence, or weighing 0.25g. But the amount found in Germany was between 200g and 300g, a significant quantity.

"What we are seeing here is batches of a consignment being moved. The problem is whether the Germans have nabbed the first, 15th or 50th consignment," he said.

Nuclear industry speculation suggested material from Russia was being transported through Germany, Estonia and Latvia, with meetings taking place in Finland. Mr Large said the risk of radiation from carrying the material was minimal. But if the courier were involved in any accident where the plutonium was dispersed the damage could be "devastating" because the material was in a respirable powder form.

"If there was a fire, that could cause significant damage in the long term and death. It would contaminate the area for several kilometres," he said.

British Engineer Interviewed on Offer To Sell Him Plutonium

OW2208121794 Tokyo ASAHI SHIMBUN in Japanese
20 Aug 94 Morning Edition p 27

[By correspondent Akira Oseki]

[Text] London, 19 Aug—"I was shown plutonium shaped like a five pence coin at a Chinese restaurant." In an interview with ASAHI SHIMBUN, John Radgey [name as published], 51, a British engineering consultant, testified that he had personally been approached by a senior Russian official trying to sell plutonium, an ingredient in the construction of nuclear weapons. He added that the senior Russian official was working at a nearby nuclear facility. In the interview, the Briton gave a vivid account of that "business discussion" and shed light on how the plutonium, a highly toxic material, was dealt with as though it was merely a sample of one of the daily necessities in Russia.

Radgey is a British atomic power technology expert. Over the past five years he has visited Russia about 10 times to consult with the Russians about dismantling nuclear-powered submarines.

He said it was in the summer of 1993 that he first met Russians who tried to sell him plutonium and other nuclear materials. The Russians were two engineers and

a manager working at the nuclear facility in a local city. He declined to provide the names of the city or the nuclear facility because he is still working in Russia.

He said the Russians suddenly pulled plutonium out of a briefcase while they were dining at a Chinese restaurant. When they opened a spherical, iron container measuring several centimeters in diameter, there was a piece of plutonium inside. It was the shape of a round plate and measured about two centimeters in diameter.

He said: "The piece of plutonium was the size and shape of a five pence coin. I saw that the material was plutonium from its color."

In the interview, he said he put the sealed plutonium in his hand. The plutonium is kept sealed because of its high toxicity that is dangerous to human beings. However, radioactive power of plutonium is so weak that the alpha rays it emits can be blocked by a piece of paper. Radgey said in the interview it was not unusual for small quantities of plutonium not be kept in lead-shielded vessels in Russia.

It is hard to detect plutonium during an X-ray check of luggage if it is not in a lead-shielded container. This

makes it easy to smuggle plutonium out of Russia. Detection becomes possible only if the quantity of plutonium is large.

Radgey said: "The quantity of plutonium uncovered recently in Germany was about 300 grams. That is about the maximum amount of plutonium that could be secretly smuggled out of Russia."

During his business discussion, he said, the Russians had spent three hours asking him to help sell plutonium smuggled out of Russia while he looked over their English-language documents.

"Needless to say, I rejected their request. We did not go into negotiations over price," he said.

The Briton said he felt his contacts intended to use the small number of Western engineers in the city to earn money in one way or another.

He also revealed that he had received another offer from Russians when he visited Russia in February to attend a conference.

He stressed the point: "Even if the plutonium in Russia is kept sealed, the possible leak of it in an accident could cause a major disaster. Russia is in a very dangerous situation."

Germany Warns Russia Over Nuclear Smuggling Issue

MS2208134094 London THE DAILY TELEGRAPH
in English 22 Aug 94 p 9

[Report by Alan Philips: "Aid Cut Threat Over Nuclear Smuggling"]

[Text] Moscow—Germany threatened to cut its economic aid programmes to Russia yesterday unless the Kremlin agreed to help stamp out the smuggling of radioactive materials from its top secret plants.

The warning was delivered by Herr Theo Waigel, Germany's Finance Minister, in an interview with BILD AM SONNTAG. "Our financial aid will depend on Moscow's willingness to co-operate with us in the fight against smuggling of nuclear materials," he said. He called on other aid donors to adopt the same approach.

Chancellor Kohl was understood to have sent a message—the second in a week—to President Yeltsin, who is holidaying in Sochi on the Black Sea coast, urging him to take decisive measures to ensure that material of use to nuclear-ambitious nations such as Iran, Iraq, Libya or Pakistan did "stray around the world".

The German pressure appears to be prompted by the truculent response of Russia's Atomic Energy Ministry and the Federal Counter-Intelligence Service, heir to the KGB, which have refused to acknowledge the possibility that consignments of plutonium found in Germany over the past four months may have come from Russia. Mr Bernd Schmidbauer, the Chancellor's special envoy, was due to resume talks in Moscow today with Russian officials after handing over technical details of a consignment of plutonium smuggled from Moscow to Munich on Aug 10.

Even after Mr Schmidbauer's first meeting on Saturday, the Kremlin was still insisting that the origin of the plutonium was "probably not" Russian. Moscow has given the impression, at least to its domestic audience, that the whole affair—including the supplying of the plutonium—was got up by the German secret services in order to discredit Russia. The Russians appeared gratified that Mr Schmidbauer had adopted a "businesslike" tone in his Moscow talks.

"This has contrasted sharply with the accusatory tone adopted by the Western media on the subject," said a spokesman for the Russian counter-intelligence service.

Russian experts were said to be examining the weekend examining technical details of the plutonium cache with a view to establishing whether it actually did originate from Russia.

Germany, Russia Sign Memorandum on Cooperation

LD2208154894 Moscow INTERFAX in English
1320 GMT 22 Aug 94

[Text] As a result of three-day talks, the director of the Russian Federal Counterintelligence Service (FCS),

Sergey Stepashin, and the state minister in the German federal chancellor's staff, Bernd Schmidbauer, who is responsible for coordinating the activities of special services, have signed a memorandum whose contents have not yet been published.

The text of the document will be made public as soon as the leaders of the two countries, Boris Yeltsin and Helmut Kohl, study the results of the talks.

According to a communique released on the results of the talks, the two sides agreed that the illegal circulation of nuclear materials, wherever they came from, represented a danger and that wider and closer cooperation was needed to prevent and punish illegal activities in this area.

The two nations confirmed their readiness to broaden bilateral ties and develop long-term cooperation.

The two delegations agreed on specific steps designed to expand bilateral cooperation as stipulated in the memorandum.

At a briefing in Moscow today, Stepashin described the document as "very serious" and pointed out that the main result of the three-day work was "specific work on latest incidents with uranium and plutonium rather than mutual accusations or search for enemies and opponents, as on the eve of Boris Yeltsin's visit to Germany."

As was reported earlier this month, the Munich airport detained passengers from Moscow who were carrying several hundred grams of weapon-grade plutonium. The German special services said they knew about other leakages of nuclear materials.

"We will work jointly on a number of incidents, including with operative methods," Stepashin told the briefing.

Stepashin said Schmidbauer had named several persons involved in the Munich incident during their meetings. The investigation of the incident, including the interrogation of the persons, will also be joint.

Stepashin said Schmidbauer had invited him to Bonn this September or October to continue the talks. Stepashin hoped that the Russian and German special services will cooperate in future in the fight against nuclear leakages, corruption, organized crime, international terrorism, etc. And called on other states to join the Russian-German initiative.

Euratom Says FRG Plutonium From 'Russian Nuclear Complex'

AU1808130894 Paris AFP in English 1239 GMT
18 Aug 94

[Text] Brussels, Aug 18 (AFP)—Six grams of plutonium seized in May by German police come from a Russian

nuclear complex, the director of the European Atomic Energy Community (Euratom) Wilhelm Gmeling said Thursday.

Euratom experts have narrowed down to three or four the likely Russian sites where the nuclear-weapons-making material could have been produced, he said.

These included nuclear plants at Arzamas-16 and Yekaterinburg in Siberia.

But the six grams of plutonium, seized near Lake Constance, southern Germany, might not have been stolen at the production site itself, Gmeling said.

Euratom is tasked with promoting European Community nuclear energy for peaceful purposes and has monopoly powers on acquisition of fissile materials for civil purposes. It is also called upon to test radioactive products but has no power of investigation.

Gmeling was however more cautious concerning the origin of 350 grams of plutonium seized at Munich airport on August 10, as testing was not yet completed.

Another Euratom official, who wished to remain anonymous, Wednesday told AFP that the later seizure was "probably" of Russian origin and, because of its level of enrichment, presumably came from a military or scientific plant.

Up until the Munich seizure, other amounts of plutonium seized were not significant, Gmeling also said.

In the past three years, police in the European Community have seized 26 illegal consignments of uranium and plutonium, but the Munich bust was the most important, he said.

Gmeling underscored the importance of working with Russia to plug the leaks, adding that joint working groups were already set up to do so.

IAEA Continuing Activities To Verify DPRK Nuclear Program

*SK1608235294 Seoul KBS-1 Radio Network in Korean
2100 GMT 16 Aug 94*

[By correspondent Cha Man-sun from Vienna]

[Text] The International Atomic Energy Agency [IAEA] revealed that the agency is continuing activities for the continuity of inspection in order to verify that North Korea froze its nuclear development, and that the two inspectors in Yongbyon are replacing the surveillance equipment at seven nuclear facilities.

To ensure that the 8,000 nuclear fuel rods are not reprocessed, the IAEA said that the two inspectors will remain in Yongbyon until concrete technical measures are taken to freeze the nuclear development, which was agreed upon at the U.S.-North Korea talks held in Geneva.

According to IAEA Spokesman Kyd, the two inspectors who are in Yongbyon to verify the freezing of nuclear development, are frequently replacing batteries and video tapes in major facilities, including the radiochemical laboratory and five-megawatt reactor, at the seven nuclear facilities where North Korea is allowing inspections.

IAEA Hopes To Restart DPRK Nuclear Inspections

*AU1608120594 Paris AFP in English 1143 GMT
16 Aug 94*

[Text] Vienna, Aug 16 (AFP)—The International Atomic Energy Agency (IAEA) said Tuesday it hoped to restart all its inspections in North Korea following the agreement reached between the United States and North Korea in Geneva Saturday.

In a statement published here the IAEA said it welcomed the accord signed by the two powers Friday on North Korea's suspected nuclear programme.

In the accord, North Korea agreed to remain a member of the international Nuclear Non-Proliferation Treaty and said it would allow the implementation of the guarantees accord—coded language for inspections.

"The Agency assumes that this undertaking will mean discontinuing current restrictions on the activities of its inspectors," in the country, the statement said.

The agency had already on Saturday welcomed the accord but said that much more work remained to be done before suspicions over North Korea's nuclear programme could be laid to rest.

IAEA inspections have so far been limited to the experimental five-megawatt reactor at Yongbyon, the stockpiling of 8,000 fuel rods withdrawn from there in June, and a fuel reprocessing centre also at Yongbyon.

The Agency hopes now it can broaden its inspections to cover the other five of the seven nuclear sites declared by North Korea, the Agency spokesman Hans-Friedrich Meyer said.

Framatome To Cooperate With ROK in Converting UF6 to UO2

*BR1708115894 Paris AFP SCIENCES in French
28 Jul 94 p 20*

[Unattributed report: "Nuclear Fuel: Cooperation Between two Framatome Subsidiaries and South Korea"]

[Text] Paris—A cooperation contract in the nuclear fuel production sector has just been signed between two subsidiaries of the Framatome group—Fragema and FBFC—and the South Korean company, KNFC (Korean Nuclear Fuel Company) with a view to the

construction of a conversion unit for converting uranium hexafluoride (UF₆) into uranium powder (UO₂), Framatome announced in a statement released on 25 July.

This small plant, which will be operational in 1998, is to produce 200 tonnes of UO₂ per year. It will be built on the KNFC site in Taejon, some 100 km south of Seoul.

The technology that will be used in Taejon to convert from UF₆ to UO₂, and which will lead to the production of fuel assemblies for nuclear power plants, is the so-called "dry path" [voie seche] technology that has been used for many years by FBFC in Pierrelatte (Drome) to produce 1,600 tonnes of UO₂ per year.

The contract covers the supply of equipment, technical assistance, supervision of the construction of the plant, the training of Korean personnel, and a licence to use the French process, the statement added, without providing any amounts.

In South Korea KNFC is responsible for designing and manufacturing the nuclear fuel for the country's nine nuclear plants. Framatome has already provided two 900 MegaWatt reactors for the plant in Uljin, which has been operating at full power for five years on behalf of the company, KEPCO, which owns the plant.

Fragma is a subsidiary of Framatome (50 percent) and COGEMA (General Nuclear Materials Company) (50 percent). The distribution of shares in FBFC is 51 percent for Framatome and 49 percent for COGEMA.

Russian Role in Korean Nuclear Development Examined

94WP0133A Moscow SEGODNYA in Russian
12 Aug 94 p 3

[Article by Vladimir Myasnikov, corresponding member of the RAN [Russian Academy of Sciences]: "Russia in the Korean Crisis: Well-Balanced Relations With Both North and South Meet Moscow's Interests"]

[Text] A nuclear program and the nuclear policy associated with it cannot be the internal affair of any country. This is the principal meaning of the Treaty on Nonproliferation of Nuclear Weapons, which the states concerned spent many years in drafting. It is no accident that the treaty also provides for regular inspections of its implementation by the International Atomic Energy Agency. The treaty was opened for signing on 1 July 1968 and went into effect on 5 March 1970. Its Article 10 stipulates that "20 years after the treaty goes into effect, a conference will be held to decide whether the treaty will be extended for an indefinite period or whether the treaty will be continued for an additional period or periods."

After being advised persistently by the USSR, the DPRK officially accepted the conditions of the Nonproliferation Treaty on 12 December 1985. Today the DPRK's nuclear policy is the center of attention, not only because

it is destabilizing the situation on the Korean peninsula and in the ATR [Asia and Pacific Region] as a whole, but because the "semiwithdrawal" of North Korea from the treaty and its refusal to accept the obligations ensuing from the treaty may provoke other states to take retaliatory actions.

One and a half to two years ago there were grounds to assume that North and South Korea were headed toward reconciliation. In December 1991, both sides signed the Pact on Nonaggression and Cooperation and the Treaty on the Nuclear-Free Status of the Korean Peninsula. In early 1992, six years after the DPRK subscribed to the treaty, it finally reached agreement with the IAEA [International Atomic Energy Agency] on holding inspections and authorized IAEA inspectors to see the facilities it had identified.

In January 1992, for the first time after the Korean War, a meeting was held between American and North Korean politicians, and beginning in April 1992, IAEA staff members conducted six inspections of North Korean facilities. These inspections confirmed that Pyongyang had a program in operation to produce plutonium.

A confrontation began in February 1993 when the IAEA announced its intention to conduct a "special inspection" of two storage pits for nuclear waste in the Yongbyon complex. According to the IAEA statement, analysis of the samples of nuclear waste taken during the preceding inspection made it possible to assume that DPRK specialists had succeeded in extracting more plutonium than they stated officially. The IAEA wanted to investigate further. However, after a dispute arose concerning access to the undeclared places where nuclear waste was stored, the DPRK refused to permit inspections. North Korea announced on 12 March that it would rather leave the treaty than consent to the demand for special inspections in its territory.

A substantial role in complicating the situation was also played by the beginning of the "Team Spirit" maneuvers in mid-March 1993, not long after the last period set for the IAEA to inspect the two facilities undeclared previously. Pyongyang could not respond to the "Team Spirit" exercises with adequate countermaneuvers and it was forced to look for another response. It refused to accept compulsory inspection by the IAEA of the facilities which were not nuclear, in its opinion, and then it decided to withdraw from the Treaty on Nonproliferation of Nuclear Weapons, explaining that it took this step as a protest against the "Team Spirit" maneuvers and the IAEA's demands for a special inspection, which it characterized as "malicious political schemes, undertaken to compel us to open military facilities and bases, thereby leaving us defenseless militarily." Although if North Korea had consented to the IAEA inspection, it would have set a precedent to receive South Korea's consent for the same inspections.

Intensive negotiations between the United States and North Korea were begun in Beijing and New York in

mid-1993, during which Washington attempted to persuade Pyongyang to adhere to the treaty and to give its consent to the IAEA inspections. In June 1993, a day before the announced date of its withdrawal from the treaty, Pyongyang agreed to "postpone" its withdrawal, but it continued to reject the IAEA inspections.

During the negotiations and in its public declarations, the DPRK claimed it had special status with regard to the treaty and the IAEA, saying that it "voluntarily" consented to the inspections which were already conducted, but inasmuch as its participation in the treaty is considered to be "deferred," it has no legal obligations with respect to all the types of regular inspections and those assigned for a specific purpose which were stipulated by the agreement with the IAEA. After negotiations with the United States, Pyongyang declared that it is once again assuming all its commitments under the treaty. On 15 February 1994, an agreement between the DPRK and the IAEA on resumption of regular inspections was announced.

But after that, relations between North and South Korea once again deteriorated to the point that the danger of a military confrontation on the Korean peninsula began to arouse justifiable alarm. Russia could not remain on the sidelines, of course.

During his meeting in Moscow with Kim Il-song, Boris Yeltsin stated that "if it reaches the point that the DPRK seeks to abrogate the Treaty on Nonproliferation of Nuclear Weapons, Russia will be compelled to begin resolving the problem by stages: first by giving a warning, and then the world community should make the decision to apply sanctions against the DPRK."

This statement was made at the time that the crisis associated with the North Korean nuclear programs had reached its next stage of intensification. Pyongyang refused to grant the IAEA inspectors the opportunity to test the depleted fuel rods removed from the reactor at the Yongbyon complex. This procedure was to have enabled them to determine whether the fuel is being used for military purposes. At the IAEA's request, the UN Security Council began looking into possible sanctions against the DPRK. It was announced in Pyongyang that if such sanctions were introduced they would be considered "an act of war." It should be taken into account that relations between the DPRK and the United States are regulated only by the provisional truce agreement reached at the end of the Korean War.

The introduction of sanctions against the DPRK was not understood by all the permanent members of the Security Council. Such a turn of events was considered to be extremely undesirable in Moscow. The Russian side believed that it is premature to speak about sanctions against this state before a decision is made to convene an international conference on the DPRK nuclear problem. The problem of the nuclear crisis on the Korean peninsula was discussed in Moscow during the visit by PRC Minister of Foreign Affairs Qian Qichen. At this time the

Chinese leadership reaffirmed its refusal to support any sanctions against the DPRK.

Meanwhile, when talks at the highest level between the Russian Federation and the RK [Republic of Korea] were under way in Moscow at the end of May 1994 and consultations were being held in the UN Security Council on how best to penalize the DPRK for the breakdown of international control over its nuclear programs, North Korea launched two cruise missiles intended to be targeted against vessels and began mining approaches to the coastline. Thereby demonstrating that it seeks to protect itself against an amphibious landing. All this was a typical display of the policy of "a point against a point," well-known in East Asian diplomacy since ancient times.

The Russian proposal for an international conference is based on the fundamental thesis for Russian diplomacy that Russia's maintenance of well-balanced relations with the DPRK and the Republic of Korea is the basis of its policy toward the states on the Korean peninsula.

The North Korean nuclear policy requires a comprehensive, systematic approach, and it cannot be separated from the nuclear programs of neighboring states. Japan signed the treaty only in 1970, and the parliament ratified it only in 1976. According to expert assessments, Tokyo will have a reserve stock of five to 10 metric tons of plutonium at its permanent disposal in five years, and perhaps even sooner. Although this plutonium will not be suitable for weapons production, the experts maintain that it can be processed for military uses without particular difficulty.

During the American-Japanese summit in Tokyo in June 1993, in response to the American side's insistence that Japan assume the commitment to support the idea of "permanent and unconditional" extension of the treaty during the course of preparation for the conference on the Treaty of Nonproliferation, Japanese diplomacy assumed a negative position. Official representatives of Japan's Ministry of Foreign Affairs objected to permanent extension of the treaty on the grounds that this may tie the hands of future governments in Tokyo if new threats to their security arise. They rejected the idea of an unconditional extension, since in their opinion, the treaty's existence is determined by Article 6, which requires that the nuclear powers do away with their own arsenals. In August 1993, Premier Morihiro Hosokawa attempted to assuage the alarm in the United States and East Asia resulting from this position, and it supported the idea of the treaty's permanent extension, all the same.

The Republic of Korea has nine nuclear power plants and it is planning to put another five in operation before the end of the decade. According to expert assessments, South Korea may extract 10 metric tons of plutonium from the fuel waste products accumulated in processing them. Its reserves of potential plutonium will increase to 24 metric tons by the year 2000.

On 28 June, delegations of the DPRK and South Korea made arrangements in Panmunjom for a summit meeting. It was assumed that the DPRK's nuclear program would be discussed during the course of the Korean summit. The meeting was set for the end of July. American-North Korean talks on adjustment of relations between the two states were resumed in Geneva. The North Korean delegation arrived at the talks on 7 July.

But an event took place which had a substantial effect on further development of the trends already noted—Kim Il-song died of a heart attack at the age of 83.

During the meeting in Naples, leaders of "the Big Seven" expressed the hope that the crisis on the Korean peninsula would be settled. This position is shared by Russian diplomacy. President Yeltsin noted at a press conference in Naples that Russia could correct Pyongyang's nuclear program at the technological level by replacing one type of TVEL [fuel element] with another.

If the result of the nuclear crisis caused by North Korea is the organization of a dialogue at the highest level between the two Korean states and fulfillment of the arrangements already reached for peaceful unification of Korea, turning the peninsula into a nuclear-free zone, as well as the restoration of full relations between the DPRK and the United States and the DPRK and Japan, we will be able to say that the North's nuclear policy was successful. And that the policy of the other states concerned was a success as well.

German, Russian Experts View Nuclear Material Smuggling

MM1808140894 London BBC Television Network
in English 2130 GMT 17 Aug 94

[Interview with Stefan Schwarz of the Bundestag Defense Committee in Bonn, and Major Sergey Sidorov, Russian Military Analyst, in Moscow by Jeremy Paxman in London; from the "Newsnight" program—live]

[Text]

Paxman: Stefan Schwarz are we dealing here do you think with isolated cases, or is there now a clear pattern in which illicit nuclear material is being brought into the West?

Schwarz: I think we have to face the fact that since the breakdown of the wall [as heard] we have to face new dangers and threats, as it has been said. I think there is a pattern of it and we do not have to blame the Russians. It is not about Russians, it is about international Mafia. We have seen in Germany that not only Russians but also South Americans and Germans and others have been involved in these deals and I think we have to find an answer to that. That means the G-7 circle, the G-7 Summit, as Secretary of State Warren Christopher has announced today, has to deal the problem and has to deliver the means to the Russian partners how to prevent a wider spreading of this nuclear material.

Paxman: Right, Major Sidorov do you accept that prima facie much of this recent material has come from Russia?

Sidorov: I personally don't believe that that is possible at all. I talked to a number of experts who know what they say, and all of them are refuting any possibility of radioactive material coming from Russia. But let's wait for the German envoy, who comes on Saturday, let's see what he brings in his attache case and let's then talk about the possibility. Theoretically this possibility might exist, and if concrete material evidence is produced by the German evidence, then we have a topic for conversation, for serious conversation.

Paxman: OK, fair enough, there is no firm evidence so far, and we would have also to say that many of these cases have actually been cases of entrapment very often by journalists, haven't they?

Sidorov: Yes, I think so. In this country some people, some observers, analysts say that the question, the topic is gaining too much propaganda meaning, the emotions run too high about that and there is too much smoke about all this radioactive material coming from Russia, and so forth.

Paxman: The critical thing is of course, you need say three, ten kilograms [as heard] to make a bomb, but you only need minuscule amounts to contaminate an area very seriously. We can't clearly expect that every gram of nuclear material is going to be easily accountable. What sort of mechanism should be put in place Stefan Schwarz?

Schwarz: I think this is what the international agency in Vienna is rejecting up to now to do with that. There has to be provided an international system of surveillance of these materials—has to be established [as heard], and once again I myself have got an offer in (?91) of somebody who was talking to me about materials, high quality steel, which has been useful to build up nuclear plants, as he told me, and he told me that he has got this information from military structures in the former Soviet Union, so...

Paxman, interrupting: You were offered this material were you, to buy?

Schwarz: No, I just got this information and I handed it over to our responsible people. What I have to say is—we have to react in prevention and we do not have to wait up to the point when any terrorist group or any Mafia group is able to stop the world go round...

Paxman, interrupting: Sure, but we don't even know what the total quantity of nuclear material is in the West, let alone in the former Soviet Union?

Schwarz: This is what I think we have to do, we have to cooperate, and I am very lucky with the fact that the Russian President offered today to Chancellor Kohl, in answering a letter from Chancellor Kohl, that they are ready to deliver full cooperation as a friend and as a

partner, and Russia in this broadcast is saying "we have to look for evidence." But we have to face the fact that this radioactive material is in Germany, has been discovered, and that we have to follow the lines backwards to the sources, and we have to be very aware of the fact that this is not a Russian problem, that this is no case for propaganda, but this is an international threat which is as I said earlier, the biggest threat after the breakdown of the wall, and we have to do something on that and quickly and we don't have any chance to wait up to the time when bombing in the streets is replaced by threatening whole populations, cities, even more by nuclear material.

Paxman: Major Sidorov, do you think to that end, that the Russians would be prepared to allow international inspectors to go wherever they liked in your country?

Sidorov: Well first I would like to appreciate Mr Schwarz approach, but at the same time I would like to mention one of our Russian proverbs—let's not put the cart before the horse.

Paxman: That's an English proverb too, I think?

Sidorov: Ok, and there is also one more Russian proverb—seven nurses for a child is much worse than the only one—so if we face pattern, if we face a real problem of smuggling radioactive materials through Russia, through Germany, maybe through other countries, then of course we have to address it very seriously on an international level. I can agree with that.

Paxman: Ok, gentlemen, thank you both very much.

Russia To Offer DPRK Nuclear Reactor Equipment

LD1708131194 Moscow *INTERFAX* in English
1114 GMT 17 Aug 94

[Text] Russia is ready to help settle North Korea's nuclear problem by supplying equipment and technology to Pyongyang to replace graphite moderated reactors for light water ones, Russia's Deputy Foreign Minister Aleksandr Panov said in an interview with Interfax.

He said that "Moscow has informed the United States and North Korea of its readiness to do this." "North Korea has already officially informed Russia of its

interest in receiving our technical assistance in light water nuclear reactors," Panov stressed.

He said, "Russia has already acquired certain experience in cooperation with North Korea in the nuclear field." "Our engineers and scientists have already examined a site for building a nuclear power station and have prepared a feasibility study," Panov said.

He also said Moscow is ready "to consider the issue on reprocessing spent fuel from the North Korean nuclear power stations at Russian enterprises." "We see no problems if an international fund or consortium guarantees financing," Panov noted.

Russia, India Continue To Implement Space Contracts

LD2208124294 Moscow *INTERFAX* in English
1114 GMT 22 Aug 94

[Text] Russia and India continue to implement joint space contracts in strict accordance with documents, signed in Bangalore in December 1994, Deputy General Director of the Glavkosmos company Nikolay Semenov told Interfax. Glavkosmos has signed a contract in 1991 to supply India with cryogenic boosters.

Semenov said that the implementation of the \$28 million contract for the production and supply of launchers for cryogenic boosters was in full swing. The launchers include a liquid oxygen refuelling system, he added.

He also said that India's Space Research Organization would not start receiving cryogenic boosters before the end of 1996 or early 1997. In accordance with an agreement signed in December 1993, the Khrunichev Space Research and Production Center, which has the status of general contractor, will supply India with a total of seven cryogenic boosters.

Semenov said that Russia had succeeded in saving the \$220 million contract, signed before the Soviet Union's breakup even though Moscow had cancelled the supplies of rocket equipment envisaged in it.

These shipments would have violated an agreement on the nonproliferation of nuclear technology, which Moscow pledged to join. In compensation for this, Russia assumed additional responsibilities to back the Indian space program.

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